National Heart Attack Alert Program
Coordinating Committee Meeting

EXPLORING THE ISSUES:

EXECUTIVE SUMMARY AND MEETING PROCEEDINGS

December 12, 1995
Bethesda, Maryland

The Rapid Identification and Treatment of Patients With Acute Myocardial Infarction/ Acute Cardiac Ischemia in the Emerging Managed Care Environment

National Heart, Lung, and Blood Institute
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Preface

In response to a rapidly growing managed care environment, the Coordinating Committee and the Access to Care Subcommittee of the National Heart Attack Alert Program (NHAAP) recommended that the December 1995 Coordinating Committee meeting have a special focus examining the data showing that managed care may pose barriers to accessing timely and appropriate care through bureaucratic and financial disincentives, because of the importance of early recognition and response to patients with symptoms and signs of acute cardiac ischemia (ACI), including acute myocardial infarction (AMI) and unstable angina. Rapid access to appropriate care is paramount for these patients because of the potentially emergent nature of their condition and the time sensitivity of current treatments such as thrombolytic therapy for patients with a heart attack.

The overall goal of this meeting was to explore policies and trends in managed care as they affect access to care and the rapid identification and treatment of patients with symptoms and signs of ACI/AMI as well as of their potential implications for the NHAAP's educational efforts with health care providers, payers, patients, and the public.

The NHAAP established the following objectives for the meeting:

1. Highlight NHAAP educational issues related to the program's three phases; Phase I, patient/bystander recognition and response; Phase II, prehospital action (access to emergency medical services [EMS]); and Phase III, hospital action that includes hospital evaluation and treatment that are critical to the rapid identification and treatment of patients with ACI.
2. Present an overview of current policies in the emerging managed care environment as they relate to access to care and triage and to provisions for reimbursement for transportation, evaluation, and treatment of patients with symptoms suggestive of ACI.
3. Identify areas and issues where the managed care industry and the NHAAP converge and diverge in terms of recommendations for, or approaches to, accessing and receiving emergency cardiac care, including how the NHAAP and managed care organizations could identify shared goals for the ultimate benefit of patients.
4. Discuss the possible role of quality indicators or outcomes for the managed care industry related to triage, transportation, evaluation, and treatment of patients with potential ACI.

5. Identify areas in the emerging managed care environment where education of providers, patients, and the public is needed to ensure rapid and appropriate access to care for patients with possible ACI.

6. Identify existing and needed data for making useful comparisons of access to care for evaluation and treatment of patients with ACI under managed care versus traditional fee-for-service systems. This process includes identifying what is known about potential disparities for minority and socioeconomically disadvantaged groups and patients in remote and rural settings.

The Program Planning Committee for this special meeting recognized the broad scope of what constitutes managed care, including health maintenance organizations (HMOs), independent practice associations (IPAs), networks, and hybrid plans.

The format for the meeting included presentations that addressed managed care and access to care relative to patients and bystanders; prehospital care, including transportation and choice of hospital; and triage, treatment, and reimbursement once patients arrive at the hospital or other treatment facility. There were also two panel discussions and small-group discussions in which the NHAAP Coordinating Committee identified the perceived barriers for each of the program's three phases as well as possible solutions and next steps.

The recommendations from this meeting will assist the NHAAP Coordinating Committee in determining the effect of managed care on the educational efforts and direction of the program, including program directions that are confluent with the emerging managed care environment as well as proactive in shaping education and policies to ensure access to care for the patient with symptoms and signs of ACI.

Dr. Claude Lenfant
Director
National Heart, Lung, and Blood Institute
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Bethesda, Maryland

Executive Summary

Introduction

This Executive Summary provides synopses of the presentations given at the NHAAP Coordinating Committee's meeting held on December 12, 1995, in Bethesda, Maryland. The purpose of this meeting was to explore and discuss the policies, trends, and potential barriers to early access to appropriate care in the emerging managed care environment and examine how they potentially may affect the care of patients with symptoms and signs of ACI, including AMI and unstable angina. The members of the NHAAP Coordinating Committee, several industry representatives, and members of the audience exchanged information, explored solutions, and offered recommendations.

National Heart Attack Alert Program

The NHAAP began in 1991 and is one of several educational programs sponsored by the National Heart, Lung, and Blood Institute (NHLBI) of the National Institutes of Health (NIH). The goal of the NHAAP is to alert health care professionals, patients, and the public in general to the need for rapid identification and treatment of individuals with a possible heart attack to reduce deaths and disability.

All of the Institute's educational programs are partnerships between the Institute, which is really the sponsor or catalyst, and the individual organizations representing professional, voluntary, private-sector, and public-sector groups with a shared interest in the objectives of the program, in this case, the rapid identification and treatment of patients with ACI, including AMI and unstable angina.

To date, the NHAAP has directed its efforts to educating EMS providers and system administrators and hospital emergency department (ED) professionals, but one of its biggest remaining hurdles is to educate the public about the need for rapid response to individuals with symptoms and signs of ACI. For example, data indicate that currently many people delay 4 hours or longer before seeking help when they have symptoms of a heart attack.

One of the driving forces in today's health care environment is managed care. Approximately 70 percent of the U.S. population with employer-sponsored health coverage is enrolled in a managed care plan. Questions have been raised by committees of the NHAAP about how managed care providers determine whom the patient should call first when he or she experiences symptoms of ACI. To what hospital should the patient go? Who should approve treatment en route or once the patient is in the

ED? Will use of the ambulance and ED be reimbursed, especially if the patient does not have a final diagnosis of AMI? These questions gave impetus to the special meeting examining access to care for the patient with symptoms and signs of ACI within the context of the managed care environment, in December 1995.

Highlights of the Meeting Presentations

Access to Care and Triage Under Managed Care: What Are the Data?

Robert Brook, M.D., Sc.D., F.A.C.P.
Professor of Medicine and Health Services
Center for Health Sciences Program
University of California at Los Angeles
Director of the Robert Wood Johnson Clinical Scholars Program, University of California at Los Angeles
Director of the Rand Corporation Health Science Program
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According to Dr. Robert Brook, few data exist on quality of care and access to care under managed care systems. In fact, there is little information on what is considered to be necessary medical care for patients with heart disease in any medical setting. Available research suggests that striking differences in quality of care and access to care exist in both managed care and fee-for-service systems.

The new paradigm in health care that will dominate all forces in medicine over the next decade, at least in the United States, is to lower costs but maintain quality. So the goal of all types of health care organizations is to provide neither too much care nor too little care. Dr. Brook suggested that a series of financial disincentives has developed that will change the way medicine is practiced.

Dr. Brook proposed that the goal of NIH, the Agency for Health Care Policy and Research (AHCPR), and any research or operational group should be to produce a counterincentive to any financial disincentives to keeping quality of care and access to care on the agenda. In any given year, 2 percent of the U.S. population spends 41 percent of all health care dollars. Fifty percent of the population spends only 3 percent of the dollars. People with cardiovascular disease are in the 2-percent category, and they are the ones at whom cost containment activity will be directed.

Therefore, it is critical to do research to find out what is necessary care in this environment. Necessary care is care in which the benefit to the patient is greater than the risk to the patient, and the benefit has to be nontrivial. In addition, it is care that a physician should offer to a patient. According to Dr. Brook, we need to ask what we mean in terms of access to care for patients with chest pain. What part of it is necessary, and what part of it is less than necessary?

Dr. Brook suggested that the first goal is to determine what necessary care is; otherwise, it will be impossible to answer the question of how managed care affects access to care. Before one can critique managed care and its effect on access to care of patients with chest pain, one must know what is meant by necessary care. A balanced approach is needed because, for example, if everyone is encouraged to call 9-1-1 every time he or she feels chest pain and everyone is sent to the ED, questions of overuse of EMS need to be addressed as well.

The second goal, Dr. Brook continued, is to eliminate waste. If there is a demand for access to care, then necessary care needs to be provided more efficiently. The health ser-

vices research literature provides numerous examples of policies produced by looking only at benefit and not at cost.

Dr. Brook observed that the third goal is to improve the mean levels of quality of care, appropriateness, excellence, and patient satisfaction and decrease their variations within the medical community. People want excellent care, and they also want to be treated like human beings. Health care professionals want to increase patient satisfaction with medical care. But everything done in medicine, all the training programs, etc., increases variation in quality. This system has delivered to the health care community doctors who produce very different levels of quality because the system rewards excellent doctors and puts them in the best places. This situation is going to have to change if the questions raised are to be addressed.

One way of improving the science regarding appropriate care is to analyze the literature and establish criteria for appropriateness and necessity. This can be done by using the definition of appropriateness that says that the health benefit exceeds the health risk. If one looks at less than appropriate care nationally in this country, Dr. Brook noted, one finds that of selected procedures, one-fourth to two-thirds of services provided by medicine are less than appropriate. No economic change in the system will selectively remove the less than necessary services and keep the services that are clinically necessary without having a clinical method for making sure that this occurs.

If economic barriers are placed in front of people, they will decrease their use of care. Unless clinical systems are built to change that situation, patients will decrease their use of care for conditions that are important clinically at the same rate that they will decrease the use of care for conditions that are not important clinically.

Managed care may actually be useful if it is care as opposed to money that is being managed. If care is managed with good clinical rules, it may be possible to eliminate less than necessary care and improve quality at the same time. There is hope that managed care will actually begin to change some of the counterproductive policies that medicine has developed.

The challenge, Dr. Brook said, is how to provide the science-based recommendations to managed care organizations to help them selectively decide what to keep and what to eliminate for patients with ischemic heart disease. The Government should be producing a series of products aimed at helping managed care organizations practice better medicine for patients with ischemic heart disease.

What about excellence of care? Data from the only national study of hospitals in the United States to examine quality of care indicate that the mortality rate from heart attacks and heart failure varied significantly by which hospital was being examined. The differences were due to variations in physician and nurse knowledge, use of technical procedures, and the use of intensive care units. Such data indicate that a large number of deaths resulting from differences in quality of care are preventable, yet the amount of money being invested to improve the science in this area is very small.

There is more evidence in the research literature on quality of care related to ischemic heart disease. One study examined initial hospitalizations and whether therapies known to be beneficial for AMI patients

were actually given to them, including such things as aspirin, beta-blockers, and thrombolytic therapy. A large number of studies now suggest that even the simplest things that are known to work in patients with heart attacks are given to those patients 50 percent of the time or less.

Dr. Brook summarized the issues in this new environment of managed care as lowering costs, increasing accountability, and developing systems to ensure that the care for all patients is better. In medicine overall, there are no clinical systems in place that allow efficient interaction within a complex health care environment.

What about changing behavior? Physicians want to read less when they need information and want it available in the most precise clinical manner, perhaps in the form of guidelines. Education coupled with economic sanctions can change behavior, but education alone will not work. Economic sanctions can be economic incentives as well. If changing behavior is the goal, the scientific studies that must be done need to consider economic changes as well as clinical changes.

In the United States, most of the growth in HMOs is in IPA network models and not in staff or group models. Almost nothing is known about IPAs and network models in terms of the quality of care that they produce. Currently there is tremendous pressure in the health care market to reduce the number of dollars in the system. These health care organizations are going to try to survive, and they are going to try to do it in any morally or ethically acceptable way possible.

Dr. Brook talked about the kinds of studies that have been done in these environments. There are not enough studies to do a meta-analysis or even to summarize them, he stated; but there have been studies in which elderly people were randomly assigned to a fee-for-service or a capitated system of care, and in general the differences between fee-for-service and capitation and managed care were slight and inconsistent. These findings can be explained, he reasoned, because there are two systems of care, both of which are in chaos. This is not a criticism of either system, but an observation. With increased science, both systems can be made to perform better.

Report cards are needed to provide information on the quality of care and appropriateness of care that should be provided for patients with ischemic heart disease. An epidemiologic model of preventable mortality and morbidity is needed to decide what belongs on that report card. Practical tools should be developed based on this epidemiologic model, by which the performance of plans, physicians, and others can be judged. There should be a balance between individual- and population-based measures in the business of health care. Technical quality needs to be emphasized. Currently managed care and fee-for-service systems are judged on patient satisfaction as a quality indicator. Valid data need to be produced that are timely and correctly presented.

Dr. Brook concluded that managed care is not the problem. It actually may be part of the solution to the problem. Systems based on explicit guidelines need to be developed and implemented to maintain and improve quality in all settings. If waste

could be eliminated by developing managed care policies that selectively eliminate less than necessary care, then maybe the NHAAP objectives can be accomplished at a price that society can afford.

Systems must be developed in the public domain to show managed care organizations how to maintain quality and reduce costs within a scientific framework. If this is not done, the same questions will be asked again 5 or 10 years from now. The goal should be to improve the mean level of quality of care. The capability to do this exists now. Cooperation is needed between classical clinical researchers and health services researchers to actually produce the science to allow this to happen.

Predictors of Time to Presentation to the Emergency Department in Patients With Acute Chest Pain: Focus on Insurance Status

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Dr. Paula Johnson stated that for patients with acute manifestations of ischemic heart disease, timely presentation for medical assistance is critical. There is a debate about whether patients in managed care plans in general experience delays receiving medical care. This raises the question of whether patients' participation in an HMO is associated with a longer time to presentation to the ED after their chest pains begin.

To answer this question, data from a study evaluating patients who presented with acute chest pain to the ED at Brigham and Women's Hospital in Boston were analyzed to identify the correlates of the length of time between when patients experience chest pain and their presentations to the ED.

From July 1990 to February 1994, researchers collected information from 4,000 patients who were seen at the hospital's ED and reported having acute chest pain not explained by trauma or chest x-ray findings. Data from the approximately 3,240 patients who had presented with chest pain symptoms within 24 hours after their pain began were analyzed. The study population was mixed in terms of insurance type, race, and sex; the mean age was 57 years. The researchers examined patients' clinical and demographic data at the time of presentation and at followup. Univariate and multivariate correlates of time to presentation were determined. The results of their analyses included the following:

- The description of chest pain was similar in all insurance groups, and about the same number of patients in HMOs and indemnity insurance plans reported a typical symptoms.
- No differences were found across insurance types in time to presentation. The HMO population presented 7.1 hours after chest pain began; indemnity, 6.8 hours; Medicare, 6.5 hours; and Medicaid or uninsured, 7.3 hours.
- There were no racial or sex differences in the population of patients who presented 6 hours or less after chest pain began.
- Of the total study population, 8 percent (269) of the patients met the traditional criteria for a diagnosis of myocardial

infarction (MI). An analysis of the 8 percent who had a diagnosis of MI again found that insurance status was not associated with time to presentation and clinical outcomes.

- About 24 percent of all study patients had a diagnosis of unstable angina. This diagnosis was distributed similarly across all insurance groups.

The main conclusion drawn from the study was that insurance status was not significantly associated with time to presentation, and it was not an independent correlate after adjustment for detailed clinical data. This was true for both the general study population and the patients who had a final diagnosis of MI. Other findings from the study included the following:

- Patients who presented with typical symptoms of angina and had a past history of angina or hypertension, a family history of heart disease, and a current history of smoking were more likely to present early (within 6 hours) to the ED.
- The time of day when chest pain began was associated with whether patients presented to the ED early or late. Patients whose pain started between 9 p.m. and 3 a.m. were less likely to come to the ED early than those whose pain began between 6 a.m. and 12 noon.

Dr. Johnson suggested that from these data the research priority should be to answer questions such as the following: What are the barriers that caused more than 25 percent of the patients who received a final diagnosis of MI not to come in early? How can those patients who inappropriately come to the ED be screened out? How can more appropriate triage and education be provided to patients?

Insurance Status and Treatment-Seeking Behavior in Patients With Acute Cardiac Ischemia: Results From the Acute Cardiac Ischemia Time-Insensitive Predictive Instrument (ACI-TIPI) Trial

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Dr. Harry Selker stated that it is critical for patients with AMI or unstable angina pectoris to seek medical attention promptly and discussion continues about whether insurance status affects a person's access to medical care, particularly ED care. Health care insurers are raising barriers that may impede patients' access to ED services. Such impediments include copayments, requiring other calls to be made, and unclear instructions for patients.

An unpublished review conducted 2 years ago by the NHAAP's Access to Care Subcommittee found that Washington, D.C., area HMOs had unclear information about what patients should do in the case of a possible acute cardiac ischemic emergency, and that the barriers to emergency care were both implied and explicit.

Dr. Selker explained that the ACI-TIPI trial conducted a related study on emergency-treatment-seeking behavior to examine the effect of insurance status, particularly of managed care, on treatment-seeking behavior of patients who present to EDs with chest pain or any of the symptoms suggestive of ACI. The ACI-TIPI trial had a study

population of almost 11,000 patients, and of these, researchers analyzed the data on 6,604 from different hospitals who had presented at the ED within 24 hours after ACI symptoms began.

These researchers discovered that there were great clinical differences between patients in the employment-based group (indemnity and HMOs) and the nonemployment-based group in terms of their histories of cardiovascular disease, risk factors, and confirmed diagnoses. Medicare and uninsured patients had different income and sociodemographic characteristics from those enrolled in HMOs or indemnity plans.

After conducting univariate analyses, researchers found that diagnosis and age influenced whether an ambulance was called and also the amount of time it took to get to the hospital ED, and these factors were not evenly distributed among insurance types. Therefore, it was difficult to detect whether insurance status was an important factor in determining the use of an ambulance.

However, because the patients in the employment-based indemnity and HMO plans were similar, the data from this subsample of patients were analyzed to determine whether there was a difference in the emergency-treatment-seeking behavior in patients in the two insurance groups. Dr. Selker reported:

- In contrast to the earlier finding for the employment- and nonemployment-based groups, no significant clinical differences were found between patients in the HMO and indemnity insurance groups. They had similar histories of coronary artery disease, risk factors, and confirmed diagnoses.
- As with all employment and nonemployment groups, age was found to be an important predictor for the use of an ambulance among both indemnity and HMO patients.
- When multivariate analysis was done, researchers found that age, living situation (e.g., living alone), and presence of diabetes and other illnesses contributed independently to the decision to call an ambulance. After adjustment for these factors, HMO membership had no impact on the likelihood of calling an ambulance. HMO membership conferred an odds ratio of exactly 1, with a relatively narrow confidence interval.
- With regard to the duration of time from the onset of chest pain or other symptoms of AMI until arrival at the ED, HMO membership made essentially no difference. Age and confirmed diagnosis made relatively minor differences, and insurance type had absolutely no influence.

In conclusion, the emergency-treatment-seeking behavior of calling an ambulance or delaying going to the ED among patients with chest pain or other symptoms suggesting ACI was found to be unrelated to HMO participation. However, the patients in this study were essentially all members of an IPA model HMO with minimal restrictions to ED use, studied in late 1993. Whether these results would apply to staff model HMOs or more tightly controlled and capitated managed care systems as have evolved more recently deserves careful study.

Managed Care and How It Affects Access to Emergency Medical Services

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According to Ms. Gail Cooper, San Diego County in California is experiencing dramatic changes in its EMS system because of the reorganization of medical services into managed care settings. As the lead agency for EMS in the county, San Diego EMS receives approximately 120,000 calls per year. Cardiac emergencies are among the top eight causes of calls to the San Diego County 9-1-1 system and EMS.

Researchers at the University of California at San Diego analyzed dispatch data for the city of San Diego and, in particular, examined the severity of the emergencies that were called in to 9-1-1. The results revealed that many 9-1-1 patients did not require emergency services involving acute treatment and hospital care, and severe emergency situations accounted for only 13 percent of the callers.

It is likely that these data will change as managed care systems require better cost control and improvements in service delivery, coordination, quality, and efficiency.

Changes are occurring now in the San Diego EMS systems. Private ambulance systems are joining managed care plans, and this is increasing the incentive to coordinate medical transportation services. Private ambulance agencies have agreements with HMOs to take their beneficiaries under risk and assign, manage, and transport them for a capitation rate. Managed care systems now also promote the use of nurse triage systems, in which the patient describes symptoms over the telephone to a nurse who then advises the patient about whether to call 9-1-1.

Ms. Cooper stated that a number of pilot programs involving managed care are being conducted in the San Diego EMS system and that centralized communication systems may provide better triage of all patients who call in to the managed care or 9-1-1 system.

A large private ambulance service provider is working on a new system that merges transportation systems for managed care groups to provide the best and most efficient medical transportation services to patients. There is also interest in linking insurance company data with the 9-1-1 dispatch centers so that operators would know whether a particular patient was enrolled in an HMO. With this information, better decisions could be made about what health care facilities or resources are needed and are most appropriate for that particular patient.

Maintaining and improving the quality of services are critical to the success of these pilot programs and the switch to managed care. Quality indicators and patient care tracking programs are needed to make sure quality is not sacrificed for cost containment.

Ms. Cooper suggested several actions that could be taken to improve tracking and data systems so that the impact of these major changes can be evaluated.

- Partnerships need to be developed with managed care organizations to deliver services more efficiently.

- Prehospital data need to be linked with inhospital data. It is no longer acceptable to treat and transport everyone but rather to treat and transport when appropriate and to match system resources with patient needs.
- The treatment and transport of all patients in the system, including patients with heart disease, need to be monitored more closely.
- A link also should be developed for patients in the Medicaid system because those programs are changing to managed care arrangements.
- Good public education is essential to ensure that the quality and delivery of EMS are maintained as the system evolves in a managed care environment. Patient complaints need to be investigated promptly, and good first-responder and bystander care programs are needed.
- The 9-1-1 system safety net needs to be protected. A balance is needed so that the safety net for vulnerable populations continues to be protected.

Ms. Cooper concluded by stating that, traditionally, 9-1-1 has not had to be efficient in the way it has delivered services. But she noted that the transition to managed care is an opportunity to improve the quality and efficiency of the EMS and 9-1-1 systems by stressing quality improvement and cost-efficiency.

Emergency Department Issues

***Mark S. Smith, M.D.*[1]**
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[Editor's note: The opinions of Dr. Smith in his presentation are his alone and do not reflect the views or policies of any organization.]

Dr. Mark Smith stated that his presentation would offer a view from the trenches and examine what it is like for a caregiver in the ED when the systems are not well organized and what it is like to take care of a patient with a possible AMI, with reference to dealing with managed care organizations. He also would look at the good and bad points and finally what the future might bring.

When discussing the effects of managed care in the context of the hospital ED and the treatment of the patient with ACI, it is important to understand how an ED functions and the administrative steps that are required of ED staff and through which acute cardiac patients who report to the ED have to navigate.

Dr. Smith described the basic steps and responsibilities of the ED staff and patients who come to the ED with chest pain.

1. Patients arrive at the ED either on their own or by ambulance. Triage nurses make an initial assessment, and, regardless of insurance status, patients found to have serious emergencies are taken immediately to the clinical area for medical care.

[1] NHAAP Coordinating Committee Member; American College of Emergency Physicians

2. Patients who do not need immediate clinical attention are registered before medical care is given. If a patient is a member of an HMO or some other managed care organization that requires preauthorization of payment before treatment, the staff calls the managed care organization involved to obtain the authorization.

3. The ED has a legal obligation to provide a medical screening evaluation to all patients to determine whether an emergency medical condition exists. The 1985 Consolidated Omnibus Budget Reconciliation Act (COBRA) mandates that EDs provide care to those who need it regardless of their insurance status. Regardless of the patient's insurance status, the ED physician will contact the patient's primary care physician, assuming one exists, to obtain relevant medical history, such as copies of electrocardiograms (ECGs).

4. Once the patient has been stabilized, a decision must be made about whether to (1) discharge the patient, (2) transfer the patient to another facility, or (3) admit the patient to the hospital.

Dr. Smith expressed concern about the potential for adverse clinical outcomes for a patient with AMI or ACI in the managed care environment. But so far, Dr. Smith noted, there are no research data to support that concern, and in some cases the data may be positive. In the majority of practice environments around the country, most cases are handled so that clinical care is not compromised. Although there are no data to link managed care organizations with adverse clinical outcomes in emergency situations, there are many situations in which adverse outcomes conceivably could occur. For instance, there is the potential for a patient in the throes of an AMI to be directed to a clinically inappropriate facility (such as a private physician's office) instead of to an ED. There are a sufficient number of anecdotal instances of adverse outcomes linked to managed care to warrant thorough discussions about them.

The health care system is in transition from the fragmented fee-for-service indemnity insurance to coordinated and managed care. Because this is in a transitional phase, not all the infrastructure is in place to support the newly organized system, and this can be frustrating for both patients and physicians.

Another issue is what definition of "emergency" insurance companies should use when deciding retrospectively whether to pay an ED bill. Should it be a patient-centered definition or a diagnosis-centered definition? The standard patient-centered definition of an emergency is symptom-driven. A diagnosis-centered definition would include only those conditions considered threatening to "life, limb, and well-being." However, the final diagnosis should not be the determining factor in whether an emergency exists and whether a bill should be paid.

ED and managed care organizations have increasingly similar interests, and this alignment of interests is a paradigm for the changes happening in health care reimbursement. Managed care organizations can help the NHAAP conduct patient education because of their large information dissemination systems.

In the future, there will be a more coordinated and integrated system in which the ED will be only one part of the emergency care delivery system.

Health Care Financing Administration Perspectives

Jeffrey Kang, M.D., M.P.H.
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Health Care Financing Administration
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Dr. Jeffrey Kang said that he is optimistic about the role of managed care in relation to the goals of the NHAAP. He reported that managed care organizations have the potential of being helpful to the NHAAP in its efforts to improve the coordination of care provided to patients with ACI. They have a strong incentive to work with providers on primary and secondary prevention of cardiac ischemia. They are interested in rapidly identifying and treating ischemic patients in the ED because it will increase the likelihood of a positive clinical outcome and be cost-effective in the long run.

However, Dr. Kang explained, in their efforts to reduce medical costs, managed care organizations may inadvertently reduce quality of care by erecting barriers to certain services and may have the unintended consequence of preventing or interfering with the rapid identification and treatment of patients with coronary ischemia.

He noted that the Health Care Financing Administration (HCFA) is working with the National Committee on Quality Assurance (NCQA) on its Health Plan Employer Data and Information Set (HEDIS) project to develop outcome measures for coronary ischemia. HCFA wants to develop ways to measure the performance of managed care organizations and then, as a purchaser, hold them accountable for the quality of care that they are delivering.

The managed care industry is willing to pay for emergency services when they are used appropriately for health emergencies but not for inappropriate uses, such as their being a source of primary care. Managed care organizations should consider improving their process for controlling the use of ED care. For example, educational materials must clearly inform beneficiaries about how to identify the symptoms and signs of acute cardiac ischemia and direct them to call 9-1-1. Prior authorization rules for ED access and treatment must have clear exceptions for patients who present with chest pain and the possibility of coronary ischemia. HCFA has a little-known rule prohibiting Medicare risk plans from using prior authorization for in-network or out-of-network emergency services. HCFA is exploring the possibility of making a similar rule for Medicaid patients and is happy to support similar efforts with commercial insurers. The coverage and payment policies of managed care organizations must allow exceptions for patients with ACI or chest pain.

In conclusion, Dr. Kang asserted that there is great potential for the managed care industry to improve the rapid identification and treatment of patients with ACI. An interesting confluence of interests is occurring because the managed care industry is beginning to recognize that working with physicians and researchers on this issue will result in cost-effective care for beneficiaries. Not only will there be more cost-effective identification and treatment of heart attacks, but this cooperation also will support primary and secondary disease prevention efforts that will further reduce health care costs.

Dr. Kang also suggested that the NHAAP Coordinating Committee take an active role in developing clinical outcome measures for the emergency care of patients with ACI. “I really encourage all of you to participate in

the development of outcome measures that HCFA, NCQA, and the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) can use to hold managed care plans accountable in this area of myocardial ischemia and infarction."

Continuous Quality Improvement and Managed Care: Can We Define Indicators of Quality?

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National Committee for Quality Assurance
Washington, D.C.

Dr. Cary Sennett opened his presentation by posing the questions of how the quality of the care provided by managed care organizations can be evaluated, what indicators can be used to measure quality of care, and whether it is possible to define indicators of quality of care at all. Answering questions about the quality of care provided by managed care organizations, Dr. Sennett stated, is one of the goals of NCQA, a nonprofit agency that evaluates and reports on the quality of managed care firms. NCQA's philosophy is that the health plan organization is responsible or accountable for the care and services provided to the populations it covers.

According to Dr. Sennett, NCQA believes that increased competition can drive improvements in quality of care in the managed care industry. For that competition to take place, information about the quality of the services delivered by various managed care organizations is needed. Without such information, there is no incentive for managed care organizations to improve their services.

Dr. Sennett noted that there are two informational products from NCQA, namely the accreditation program, an intensive and rigorous standards-based evaluation of the structure and the processes that operate in health plans, and HEDIS. Dr. Sennett said his discussion would focus on the latter.

He explained that HEDIS is a set of statistics that was created 3 or 4 years ago to provide corporate purchasers of managed health care with objective, standardized information about the performance of different health plans so that they could select plans on the basis of quality and performance as well as cost. HEDIS statistics provide information in five different areas: (1) quality of care, (2) access and satisfaction, (3) membership and utilization, (4) finance, and (5) description of management. In 1993, shortly after HEDIS was released, NCQA conducted a pilot evaluation project and produced a report card. NCQA came to believe strongly that some audit or external verification of the statistics was required.

HEDIS data include information broken down by sex and age on the utilization rates of different cardiac care procedures, such as coronary catheterization, bypass graft surgery, and coronary angioplasty. These data reveal substantial variations that need to be understood to help purchasers make informed choices about individual health plans.

HEDIS is still in the early stages of development and has several important limitations. Its information focuses primarily on preventive care, and there has been little assessment of the implementation of HEDIS. Technical problems related to analyzing risk adjustment also have not been resolved.

For the next version of HEDIS, Dr. Sennett explained, NCQA plans to solicit suggestions from researchers for new measures that will better evaluate or assess the extent to which managed care firms are delivering accessible or high-quality care for patients with MI. Setting priorities about what data to collect is important. [Editor's note: HEDIS 3.0 was in the development stage at the time of this presentation but was subsequently completed in 1996.]

HEDIS will need to provide a balance of information on measures in areas where there is potential for real improvement in quality of care and information on issues that are important to the purchasers and consumers who will be making plan choices and the health plan managers who use the statistics to identify opportunities for improvements. Dr. Sennett concluded that the real challenge will be to balance the need to move forward rapidly with the need to move deliberatively as science permits.

Developing Cardiac Indicators of Quality and Outcomes for Managed Care Organizations: Report From the Joint Commission on Accreditation of Healthcare Organizations

Margaret Van Amringe, M.P.H.
Director, Washington Office
Joint Commission on Accreditation of Healthcare Organizations
Washington, D.C.

Ms. Margaret Van Amringe noted that managed care is different from other systems of care in that its goal is to promote continuity and coordination along a continuum of services. The effective management of health care relies on the interrelationships between the providers who supply the managed care organization's services and programs and the organization's central point of operation.

According to Ms. Van Amringe, the JCAHO has the challenge of providing an inventory of credible performance-based standards and outcome indicators that measure the most important functions that managed care organizations perform. This inventory is meant to be used by three types of stakeholders in managed care: payers, consumers, and providers and clinicians.

Since the mid-1980s, the JCAHO has been developing outcome indicators for providers. Last year, it incorporated a cardiovascular indicator for hospitals, time to thrombolytic therapy, which was recommended by the NHAAP, into this Indicator Measurement System, known as the IMSystem.

The issues for managed care have led to the development of a new framework for developing and testing outcome indicators to measure performance. This framework and its attendant selection of indicators for use in managed care organizations should be available in early 1996. [Editor's note: This framework was released at the National Managed Health Care Congress, April 14, 1997, in Washington, D.C.] As part of this initiative, the JCAHO last year published a request for indicators and received more than 900 individual indicators for potential evaluation. Two had as their source the NHAAP. These indicators were sorted into five domains of importance for managed care: health status, clinical performance, disease prevention and health promotion, patient and provider satisfaction, and communication and education. These were further sorted according to criteria the JCAHO has established as most important for evaluating outcome indicators: validity, reliability, data discrimination, data collection effort,

and relevancy. The remaining 300 to 400 were put into a large grid and matched to 10 to 12 priority disease conditions, including cardiovascular disease. They also were analyzed according to the JCAHO's 11 dimensions of care: appropriateness, availability, continuity, early detection, effectiveness, efficacy, efficiency, prevention of disease, respect and caring, safety, and timeliness. Within this framework, the JCAHO can begin to identify gaps in indicators.

When considering the recent advances in technology in cardiovascular medicine, it is important that the grid be dynamic and also that the JCAHO work collaboratively with the medical field to develop new indicators where necessary.

The JCAHO also has a commitment to bring some level of standardization to the measurement of managed care. Information that is useful for continuous quality improvement and for decisionmaking by consumers and payers has to be compared among plans over time. That means not just standardizing the numerator and denominator of a measure but looking at issues such as data dictionaries and data collection efforts and making sure that the information collected is truly useful for people.

Ideas/The Future

Managed Care Perspectives

Joanne Wilkinson, M.D.
Physician Coordinator
Emergency Services and Urgent Care Utilization
Office of the Health Centers Division
President and Medical Director
Harvard Pilgrim Health Care
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Dr. Joanne Wilkinson noted that the speakers at this meeting presented information about managed care and its attempts to provide quality health care in light of limited resources. Purchasers of health care are demanding quality health care and the reduction of health care expenditures is absolutely necessary for the well-being of our national economy.

According to Dr. Wilkinson, the major challenge is not whether managed care organizations can be engaged in the effort to improve access to care for cardiac emergencies because medical directors of managed care entities are willing partners. The real challenge for the NHAAP is educating the payers and providers of health care that time is a critical factor in treating AMI patients; achieving rapid reperfusion is medically crucial as well as cost-efficient.

One of the most important objectives of the NHAAP is to reduce patient delay times, which can be more than 6 hours. The data presented indicate that such delays are not unique to managed care. Legislation is unlikely to improve access or to decrease delay times in Federal and State HMO statutes. In addition, Medicare risk contracts already provide statutory and regulatory safeguards for access to care.

Reducing delay times without increasing the use of the ED for noncardiac chest pain is a challenge. Although the resources for research are diminishing, HMO record systems and databases are fertile and underutilized ground for examining prehospital care. Perhaps the NHAAP could develop a broadly applicable critical pathway with an outcome measure that can be used in the upcoming version of HEDIS.

Emergency Medical Services Perspectives

James M. Atkins, M.D., F.A.C.C.
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According to Dr. James Atkins, the role of the emergency medical system and how it relates with managed care organizations in providing care for chest pain and cardiac arrest patients is important to the NHAAP. A dilemma arises with regard to which telephone number a patient with chest pain is instructed to call by his or her managed care plan. Will a required call to a triage nurse result in critical delay in treatment for an AMI patient? Should 9-1-1 calls always be treated as emergencies even if they may not always be emergencies? What sort of linkages should there be between the managed care triage number and 9-1-1 to ensure appropriate use of resources and necessary treatment interventions for patients with symptoms and signs of AMI?

Another consideration is how to do triage for patients in the prehospital stage. Many cities, for example, are currently developing EMS programs for chest pain patients that include performing a 12-lead ECG in the field. The triage of the patient with regard to disposition is also a consideration. Should one choose the closest hospital versus an in-network hospital or the "best" hospital? Or should it be the patient's choice of hospitals? These issues require careful thought and analysis to make responsible decisions that will make the system function seamlessly for the benefit of all.

Also, Dr. Atkins continued, training programs for paramedics do not teach them the assessment skills necessary to make the decision about whether a patient needs transport. If more prehospital intervention becomes the trend of EMS systems, then much of the current educational system for paramedics and emergency medical technicians must be analyzed and revised.

Challenge to NHAAP Coordinating Committee and Industry Representatives

Lawrence D. Jones, M.D.
Consulting Physicians Network
Summit, Missouri

Dr. Lawrence Jones stated that everyone recognizes that this is a time of considerable change, socially and politically, in medical care. Information, thoughts, and ideas have been provided at this meeting to challenge the NHAAP Coordinating Committee and industry representatives about how the NHAAP's work is likely to be affected by managed care.

Dr. Jones explained that the participants had the chance to provide feedback to the NHAAP through a small-group process. Each group was given a specific topic to consider as it relates specifically to access to care for patients with ACI/AMI and managed care policies and trends. The topics are metropolitan viewpoints, rural viewpoints, public policy, research, and crosscutting challenges and solutions. Each group was charged with identifying the perceived issues and possible solutions and presenting a report of its discussion before the end of the meeting.

Introduction: Setting the Stage

A Special Focus on Managed Care

Dr. Claude Lenfant
Director
National Heart, Lung, and Blood Institute
National Institutes of Health
Bethesda, Maryland

Each year about 1.25 million people in the United States suffer a heart attack, of which 500,000 end in death, half of which occur suddenly, described Dr. Claude Lenfant, Director of the NHLBI. Furthermore, about 5 million people have coronary heart disease and are at risk for a heart attack.

The NHAAP began in 1991 and is one of seven educational programs that the NHLBI sponsors. The NHAAP's central focus is to issue recommendations related to the rapid identification and treatment of individuals with a possible heart attack, or other manifestations of ACI, by conducting a range of educational activities for professionals, patients, and the public.

Each year about 1.25 million people in the United States suffer a heart attack.

Each of these seven programs works in a unique way. Each is a partnership between the Institute, which is the sponsor or catalyst, and individual organizations representing professional, voluntary, private-sector, and public-sector groups with an interest in the objectives of the program. In this particular program, the organizations in the partnership are associated in some way with the early recognition, transport, or management of patients who have possible AMI and are committed to reducing the rate of death and disability due to AMI or sudden cardiac death.

The NHAAP initially focused its efforts on educating EMS providers and hospital ED professionals. One of the biggest remaining hurdles now before the NHAAP is to educate the public about the need for rapid response to individuals who present with symptoms and signs of individuals with AMI. For example, research shows that many people delay seeking help by more than 4 hours after they begin to have symptoms of a heart attack.

These concerns are inextricably tied to the way care is provided. A leading force in today's health care system is managed health care. Seven years ago, less than 30 percent of people in the United States were receiving their health care services through a managed care system. Now approximately 70 percent of Americans with employer-sponsored health coverage are in managed care programs.

These numbers and the changes seen in the past few years make it obvious that a

coordinated effort is needed to explore and resolve problems and questions that influence the quality and timeliness of health care delivered to managed care patients. For example, whom should the patient call when he or she first begins to experience symptoms of a possible heart attack? To what hospital should the patient go? Who should approve the treatment either en route or in the ED? These are critical questions, and in emergency situations there is no time to ask them; therefore, discussions need to take place well in advance.

This meeting is the result of recommendations made by the Coordinating Committee of the NHAAP and specifically its Access to Care Subcommittee, which is one of the subcommittees that proposes NHAAP activities. The Access to Care Subcommittee requested this particular meeting because it recognized the important position occupied by managed care providers in the spectrum of health care services.

A clear understanding of the situation, problems, and issues related to the rapid identification and treatment of patients with ACI in the managed care environment is needed, and this meeting was organized to explore and discuss the policies and trends in managed care to see how they affect the care of patients who have symptoms of a heart attack or, more broadly, of ACI (including AMI and unstable angina).

Special thanks are due to Dr. Lawrence Jones, the head of the Planning Committee for this meeting, and the other members of the Access to Care Subcommittee who served on the Planning Committee, including Dr. James Atkins, chairman of the Access to Care Subcommittee; Mr. Jay Merchant; Mr. William Schneiderman; Dr. Jane Scott; Dr. Harry Selker; and Dr. Joanne Wilkinson.

Presentations

Access to Care and Triage Under Managed Care: What Are the Data?

How Can Quality of Care Be Improved for Ischemic Heart Disease Patients Under Managed Care?

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University of California at Los Angeles
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With the growing prevalence of managed care systems whose main goal is to lower medical costs, questions are being asked about how access to medical care and quality of care will be maintained. How will the health care community develop systems to make sure that all patients receive quality care?

According to Dr. Robert Brook at the University of California at Los Angeles Center for Health Sciences Program, few data exist on quality of care and access to care under managed care systems. In fact, there is little information on what is considered to be necessary medical care for heart disease patients in any medical setting. The research information that does exist suggests that striking differences in quality of care and access to care issues exist in both managed care and fee-for-service systems.

What is known about quality of care for ischemic heart disease patients? What are the problems in quality, and where does managed care fit into these issues?

There is a new contract—to lower costs but maintain quality. This is the new paradigm in health care that will dominate all forces in medicine over the next decade, at least in the United States. An examination of what scientific research has been able to do up to now shows something called quality or outcomes of health. There is also something called cost. At low levels of investment in the health service system a person dies. Very simple. However, as investment increases, one may not get much more health in return. So the goal of all types of health care organizations is to provide not too much care and yet not too little care.

What are the characteristics of the managed care market? First, the market in which managed care is functioning is being determined by employers. For this marketplace, no matter what the rhetoric is, lower cost is everything. Second, improved patient satisfaction increases a managed care company's market share.

Sophisticated players in the market may selectively operate to improve patient satis-

faction in those patients they want to keep and discourage the more costly patients from staying with the plan and, in effect, worrying only about short-term rather than long-term patient problems.

Dr. Brook suggested that financial disincentives have developed that will change the way medicine is practiced. He added that the market in which managed care is functioning is being determined not by managed care organizations but by employers, and in this marketplace, price is everything. The goal of NIH, AHCPR, and any research or operational group should be to produce a counterincentive to those potential financial disincentives to keeping quality of care and access to care on the agenda. In any given year, 2 percent of the U.S. population spends 41 percent of all the health care dollars. Fifty percent of the population spends only 3 percent of the dollars. People with cardiovascular disease are in the 2-percent category, and they are the ones at whom cost-containment activity will be directed.

Therefore, it becomes critical to do research to find out what is necessary care in this environment. Necessary care is care in which the benefit to the patient is greater than the risk, and the benefit has to be nontrivial. In addition, it is care that a physician should offer a patient. So questions to the NHAAP Coordinating Committee are, What do we mean in terms of access to care for patients with chest pain? What part of it is necessary, and what part of it is less than necessary?

Necessary care begins with frequency of services. A Pap smear every 3 years is necessary. One every 6 months is not necessary. Bypass surgery for left main disease, three vessel disease, and a host of other things is necessary, but not for one or two vessel disease, maybe. A bone marrow transplant for aplastic anemia is necessary but maybe not for a woman with metastatic breast cancer. If one does not know what necessary care is, it will be impossible to answer the question of how managed care affects access to care. Before one critiques managed care and its effect on access to care of patients with chest pain, one must know what is meant by necessary care.

Why is this important? The Global Utilization of Streptokinase and Tissue Plasminogen Activator for Occluded Arteries (GUSTO) randomized trial for AMI obtained information on the rate of stroke and 30-day mortality for patients in the United States and patients in several other countries with managed care systems. Researchers found little difference between the two patient groups (United States versus other countries) in the rate of occurrence of stroke and other conditions and the 30-day mortality rate. However, the rate of invasive procedures such as angioplasty, bypass surgery, and intra-aortic balloons that were performed on patients in the United States was much higher than that of their counterparts in other countries. Do these data indicate that the United States could perform fewer of these invasive procedures? It means that a balanced approach is needed.

Before one critiques managed care . . . one must know what is meant by necessary care.

There needs to be a balanced approach, Dr. Brook explained, because, for example, if people are encouraged to call 9-1-1 every time they feel chest pain and they go to the ED, questions of overuse need to be addressed.

Therefore, the second goal becomes to eliminate waste. If there is a demand for access to care, necessary care needs to be provided more efficiently. The health services research literature provides numerous examples of policies produced by looking only at benefit and not at cost. It becomes paramount to eliminate waste and to deal with cost.

The third goal: Improve the mean level of quality of care, appropriateness, excellence, and patient satisfaction and decrease its variation within the medical community. Everything done in medicine, including all the training programs, etc., increases variation in quality. There is cause for worry because this system has delivered to the health care community doctors who produce very different levels of quality because the system rewards people for being A-plus doctors and puts them in the best places. This situation is going to have to change if the questions raised are to be addressed.

It becomes paramount to eliminate waste and to deal with cost.

There is also geographic variation in the delivery of services. For example, what are the differences among Ontario, New York, and California in the rate of coronary bypass surgeries performed in people older than 75? It is only 50 per 100,000 in Ontario, it is 180 per 100,000 in New York, and it is 310 per 100,000 in California. So the first thing that needs to be done is to determine what is the correct rate in terms of appropriateness.

Again, what is meant by appropriateness? There should not be too little care or too much care. People want excellent care, and they also want to be treated like human beings. Health care professionals want to increase patient satisfaction with medical care.

There are tremendous divisions between the basic science research that is done in NIH, the clinical research that is done occasionally in NIH, and health services research. Dr. Brook suggested that one way of improving the science regarding appropriate care is to analyze the literature and develop criteria about appropriateness and necessity. This can be done with use of the definition of appropriateness that says health benefit exceeds health risk. An examination of less than appropriate care nationally in this country indicates that for selected procedures, one-fourth to two-thirds of services provided by medical providers are less than appropriate. Simply changing reimbursement methods does not guarantee that the health care system will continue to provide the services that are important and eliminate the services that are not important unless it examines its clinical practices. No economic change in the system will selectively remove the less than necessary things and keep the things that are necessary without having a clinical method for making sure that this occurs.

According to Dr. Brook, managed care may actually be useful if it is care as opposed to money that is being managed. If care is managed with good clinical rules, it may be possible to eliminate less than necessary care and improve quality at the same time. For example, in Israel, at the same time that they were talking about closing medical schools, 30 percent of gallbladder operations were less than appropriate. In the United Kingdom, 42 percent of bypass

surgeries performed were less than appropriate at the same time that people with left main disease were being put on waiting lists for months before receiving care.

"If economic barriers are placed in front of people, people will decrease their use of care. Unless clinical systems are built to change that, patients will decrease their use of care for conditions that are clinically important at the same rate that they will decrease the use of care for conditions that are not clinically important," contended Dr. Brook.

The challenge is how to provide the science-based recommendations to managed care organizations to help them selectively decide what to keep and what to eliminate in patients with ischemic heart disease. The Government should be producing a series of products aimed at helping managed care organizations practice better medicine for patients with ischemic heart disease.

How many people practice in an organizational system with a positive feedback control loop regarding what happens to people who are identified as having a positive stress test, a positive coronary angiography, or some other condition for which bypass surgery is needed? Is there a positive system in place to ensure that someone asks the patient about whether she or he wants the procedure performed? No one practices in that kind of environment.

Dr. Brook offered an analogy: You are preparing to fly to London or to Europe, and the pilot makes the statement, "We do not have a system to know whether there is gasoline in the tanks, but we have a policy. The policy is that we are supposed to refill the tanks before we take off. We have a policy, but we do not know it for a fact." Is a person likely to get on the plane? But that is the way medicine is now practiced. So there is a lot of hope that managed care will actually begin to change some of the counterproductive policies that have developed in medicine.

What about excellence of care? Data from the only national study of hospitals in the United States to examine quality of care found that the mortality rates resulting from heart attack and heart failure varied largely by which hospital was being examined. The differences were caused by variations in physician and nurse knowledge, use of technical procedures, and use of intensive care units. Such data indicate that a large number of deaths resulting from differences in quality of care are preventable, yet the amount of money being invested to improve the science in this area is very small.

Managed care may actually be useful if it is care as opposed to money that is being managed.

There is more evidence in the research literature on quality of care related to ischemic heart disease. One study examined initial hospitalizations and whether therapies known to be beneficial for AMI patients were actually given to those people, including such things as aspirin, beta-blockers, and thrombolytic therapy. There are "a large number of studies now that suggest that even the simplest things that we know work in patients with heart attacks are not very often given to those patients. Not very often means something less than 85 percent of the time. In many cases, it is 50 percent of the time or less."

The issue in this new environment of managed care becomes that of lowering costs, increasing accountability, and developing systems to ensure that the care for all patients is better. In one study that comes from the United Kingdom, cardiologists put a stamp on the patient's chart that instructed physicians to give aspirin or a beta-blocker to a patient with a heart attack. The study demonstrated that this simple system dramatically increased the use of aspirin and beta-blockers in people with a heart attack. In medicine overall, there are no clinical systems in place that allow efficient interaction with a complex health care environment.

In medicine overall, there are no clinical systems in place that allow efficient interaction with a complex health care environment.

"What about changing behavior?" asked Dr. Brook. A lot of studies have been done in this area. Physicians want to read less, and when they need information, want it available in the most precise clinical manner, perhaps in the form of guidelines. Education coupled with economic sanctions can change behavior, but education alone will not work. What is meant by economic sanctions? They can be economic incentives as well. If changing behavior is the goal, the scientific studies that must be done need to consider economic changes as well as clinical changes.

In the United States, most of the growth in HMOs is in IPA and network models and not in staff or group models. Almost nothing is known about IPAs and network models in terms of the quality of care that they produce. However, most of the literature in this field comes from research on staff or group model HMOs, much of it done many years ago when the competition in the marketplace was not nearly what it is today. Twenty years ago the pricing by HMOs was simple. If the fee-for-service price was X dollars and it went up 10 percent a year, the HMO priced itself at .8X and went up at 10 percent a year and everybody was happy. Currently there is tremendous pressure in the health care market to reduce the amount of dollars in the system. Now what happens in that marketplace? These organizations are going to try to survive, and they are going to try to do it in any morally or ethically acceptable way possible.

What kinds of studies have been done in these environments? There are not enough studies to do a meta-analysis or even to summarize them, but there have been studies in which elderly people were randomly assigned to a fee-for-service or capitated system of care, and in general the differences between fee-for-service and capitation and managed care are slight and inconsistent. These findings can be explained because there are two systems of care, both of which are in chaos. When one is compared with the other, there are not a lot of differences. Neither the fee-for-service system nor the managed care system knows exactly how it is producing a product called health care. This is not a criticism of either system but an observation. With increased science, both systems can be made to perform better.

Dr. Brook then suggested that report cards are needed to provide information on quality of care and appropriate access to care that should be provided for patients with ischemic heart disease. Otherwise

there will be a headlong dash to mediocrity. An epidemiologic model of preventable mortality and morbidity is needed to decide what belongs on that report card. Practical tools should be developed based on the epidemiologic models by which the performance of plans, physicians, and others can be judged. Also, there should be a balance between individual- and population-based measures in the business of health care. Technical quality needs to be emphasized. Currently managed care and fee-for-service systems are judged on patient satisfaction as a quality indicator.

The science that has been developed needs to be used to make it possible to evaluate care on technical quality. What is the necessary medical care content most likely to be cut? It is not reasonable to say that everybody who has chest pain that lasts for 5 seconds should see a cardiologist. A balanced approach is needed to get rid of care that is expensive and less than necessary and keep care that is necessary. These plans need to be analyzed to show how much health they are going to get for changing this kind of policy and at what cost. Health economists, medical sociologists, and clinical scientists need to come together to answer these questions. Valid data that are timely and correctly presented need to be produced. This will help determine for which outcomes there is interest in investing money.

In conclusion, Dr. Brook asserted that managed care is not the problem and may be part of the solution to the problem. If this analysis of the current system is correct, if waste could be eliminated by developing managed care policies that selectively eliminate less than necessary care, then maybe it is possible as well to accomplish the NHAAP objectives, which are to improve access to care for patients with heart attacks in a way that also improves the outcome of these patients.

Systems based on explicit guidelines need to be developed and implemented to maintain and improve quality in all settings. Dr. Brook cautioned that unless systems are developed in the public domain to show managed care organizations how to maintain quality and reduce costs within a scientific framework, these same questions will be asked 5 or 10 years from now. People will be asking the same questions and saying, "Why can't we improve access of care to those people who need it?" The goal should be to improve the mean level of quality of care across all dimensions that can be demonstrated based on science, to improve the health of people. The capability to do this exists now. Cooperation is needed between classical clinical researchers and health services researchers to produce the science to allow this to happen.

A balanced approach is needed to get rid of care that is expensive and less than necessary and keep care that is necessary.

Predictors of Time to Presentation to the Emergency Department in Patients With Acute Chest Pain: Focus on Insurance Status

What Are the Correlates of the Length of Time Between When Patients First Experience Chest Pain and Their Presentation to the Emergency Department?

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For patients with acute manifestation of ischemic heart disease, timely presentation for medical assistance is critical. There is a debate about whether patients in managed care plans in general experience delays receiving medical care. This raises the question of whether patients' participation in an HMO is associated with a longer time to presentation to the ED after pain begins.

To answer this question, data from a study evaluating patients who presented with chest pains to the ED at Brigham and Women's Hospital in Boston were analyzed to identify the correlates of the length of time between when patients experience chest pain and their presentation to the ED.

From July 1990 to February 1994, researchers collected information from 4,000 patients who were seen at the hospital's ED and reported having acute chest pain not explained by trauma or chest x-ray findings. Data were analyzed from approximately 3,240 patients who had presented with chest pain symptoms in 24 hours or less after their pain began. The study population was mixed in terms of insurance type, race, and sex, and the mean age was 57 years. Of the 39 percent of study patients who were enrolled in HMOs, the majority were from one staff-model HMO. Indemnity insurance covered 21 percent of the patients, Medicare covered another 21 percent, and the remaining 19 percent were covered by Medicaid or had no insurance.

Study Results

Researchers examined patients' clinical and demographic data at time of presentation and followup. Univariate and multivariate correlates of time to presentation were determined. Dr. Paula Johnson reported that the results of the analyses included the following:

- The description of chest pain was similar in all insurance groups, and about the same number of patients in HMOs and indemnity insurance plans reported atypical symptoms.
- No differences were found across insurance types in time to presentation. The HMO population presented 7.1 hours after chest pain began; indemnity, 6.8 hours; Medicare, 6.5 hours; and Medicaid or uninsured, 7.3 hours.
- There were no racial or sex differences in the patients who presented 6 hours or less after chest pain began. Dr. Johnson pointed out that this finding conflicts a little with that of other studies of sex differences in this area. "In fact, some of the data suggest that women, especially older women, tend to present later," said Dr. Johnson.
- Of the total study population, 8 percent (269) of the patients met the traditional

criteria for a diagnosis of MI. "The final diagnosis of MI was, in fact, not associated with a greater likelihood of coming in less than 6 hours [after chest pain began]," said Dr. Johnson. The number of patients who had a diagnosis of MI was similar in the HMO, indemnity, and Medicare groups, but lower in the Medicaid group.

- An analysis of the 8 percent of patients who had a diagnosis of MI again revealed that insurance status was not associated with time to presentation and clinical outcomes.
- About 24 percent of all study patients had a diagnosis of unstable angina. This diagnosis also was distributed similarly across all insurance groups.

Conclusions

In summary, "insurance status was not significantly associated with time to presentation," said Dr. Johnson. It was not an independent correlate of the time to presentation. This was true for both the general study population and the patients who had a final diagnosis of MI. Other findings from the study include the following:

- Patients who presented with typical symptoms of angina and had a history of angina or hypertension, had a family history of heart disease, and currently smoked were more likely to present early (within 6 hours) to the ED.
- The time of day when chest pain began was associated with whether patients presented with their symptoms early or late. Patients whose pain started between 9 p.m. and 3 a.m. were less likely to come to the ED early than those whose pain began between 6 a.m. and 12 noon.

Dr. Johnson suggested that from these data the research priority should be to answer questions such as the following:

- What are the barriers that caused more than 25 percent of the patients who received a final diagnosis of MI not to come in early?
- How do we start screening out those patients who come to the ED inappropriately?
- How do we start providing more appropriate triage and education to patients?

Insurance status was not significantly associated with time to presentation.

Insurance Status and Treatment-Seeking Behavior in Patients With Acute Cardiac Ischemia: Results From the Acute Cardiac Ischemia Time-Insensitive Predictive Instrument (ACI-TIPI) Trial

Insurance Status—Does It Affect ACI Patients' Access to Care?

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It is critical for patients with AMI or unstable angina pectoris to seek medical attention promptly, and discussion continues about whether insurance status affects a person's access to medical care, particularly ED care.

[2] NHAAP Coordinating Committee Member; Society of General Internal Medicine

According to Dr. Harry Selker, a researcher at New England Medical Center, health care insurers are raising barriers that may impede patients' access to ED services. Such impediments include copayments, requiring other calls to be made, and unclear instructions for patients.

"The Access to Care Subcommittee of this National Heart Attack Alert Program about 2 years ago conducted a review of health plans in the Washington, D.C., area's HMOs," said Dr. Selker. "They found that there was very unclear information about what patients should do in the case of an emergency, and there were implied and explicit hurdles to emergency care."

Dr. Selker and his colleagues working on the ACI-TIPI trial conducted a related study on emergency-treatment-seeking behaviors. "We undertook this study to examine the impact of insurance status, particularly of managed care, on treatment-seeking behaviors of patients who present to emergency departments with chest pain or any of the symptoms suggestive of acute cardiac ischemia," said Dr. Selker.

The ACI-TIPI trial had a study population of almost 11,000 patients from 10 community and tertiary-care hospitals in New England, the Southeast, and the Midwest. There was a substantial mix of racial and ethnic groups in the patient population. Researchers analyzed the data on 6,604 patients who had presented at the ED at different hospitals within 24 hours after symptoms of ACI began.

A confirmed diagnosis of ACI was based on the World Health Organization's clinical criteria. "We further stratified acute infarction patients by the severity of their infarction by Killip Class and of those with angina pectoris by Canadian Cardiovascular Association Class," stated Dr. Selker.

Employment-Based vs. Nonemployment-Based Insurance Status

The researchers discovered the following information about the influence of insurance status:

- There were great clinical differences between patients in the employment-based group (indemnity and HMOs) and the nonemployment-based group in terms of their histories of cardiovascular disease, risk factors, and confirmed diagnoses. Medicare and uninsured patients had different income and sociodemographic characteristics from those enrolled in HMOs or indemnity plans.
- After conducting univariate analyses, researchers found that diagnosis and age influenced whether an ambulance was called and the amount of time it took to get to the hospital ED, and these factors were not evenly distributed among insurance types. "Therefore, it was difficult to detect whether insurance status was an important factor in determining the use of an ambulance," says Dr. Selker.

Managed Care vs. Indemnity

Researchers then focused their examination on a subsample of 1,034 patients who were from HMO and indemnity groups and were matched by hospital, age, sex, history of previous infarction, and risk factors for coronary artery disease. They analyzed the data to determine whether there was a difference in the emergency-treatment-seeking behaviors of patients in the two insurance groups and discovered the following:

- In contrast to the earlier finding for the employment- and nonemployment-based

groups, no significant clinical differences were found between patients in the HMO and indemnity insurance groups. They had similar histories of coronary artery disease, risk factors, and confirmed diagnoses.

- Age was found to be an important predictor for the use of an ambulance among both indemnity and HMO patients. The elderly were much more likely to call an ambulance to go to the ED than younger patients. The confirmed diagnosis also made a difference in predicting ambulance use.
- When a multivariate analysis was done, researchers found that age, living situation (e.g., living alone), and presence of diabetes and other illnesses contributed independently to the decision to call an ambulance. After adjustment for these factors, HMO membership had no impact on the likelihood of calling an ambulance. (HMO membership conferred an odds ratio of exactly 1, with a relatively narrow confidence interval.)
- With regard to the duration of time from the onset of chest pain or other symptoms of AMI until arrival at the ED, "age and confirmed diagnosis have relatively minor differences, and insurance type made essentially no difference," said Dr. Selker.

Conclusions

The emergency-treatment-seeking behavior of calling an ambulance or delaying going to the ED among patients with chest pain or other symptoms suggesting ACI were found by Dr. Selker and his colleagues to be unrelated to HMO participation. However, Dr. Selker noted that the patients in this study were essentially all members of an IPA model HMO with minimal restrictions to ED use as studied in late 1993. "Whether these results would apply to tightly controlled and capitated managed care systems as have evolved more recently deserves careful study."

Calling an ambulance and delaying going to the ED among patients with chest pain were found to be unrelated to HMO participation.

Managed Care and How It Affects Access to Emergency Medical Services

Changes in the Delivery of Emergency Medical Care Services in San Diego County

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San Diego County in California is experiencing dramatic changes in its EMS system because of the reorganization of medical services into managed care settings. Ms. Gail Cooper, the administrator of EMS for the San Diego County Department of Health Services, explained that she would present what is happening in San Diego County as it relates to managed care and EMS and how it affects access to care. She also said that to understand the effect on San Diego, one has

to understand its distinguishing characteristics. For example, San Diego has 2.5 million residents living within 4,300 square miles. Eighty percent of the county's land is considered rural, and the other 20 percent is home to a high-density urban population. The county is ethnically diverse and has a large Hispanic population because of its proximity to the Mexico border. There are 40 ambulance providers, 48 first-responder agencies and aeromedical support units, and 26 hospitals with acute care facilities and EDs.

As the lead agency for EMS in the county, the San Diego EMS agency receives approximately 120,000 calls per year. For the most part, 9-1-1 patients are transported to the closest acute care facility equipped to deal with those patients' needs. Cardiac emergencies are among the top eight reasons for calls to the San Diego County 9-1-1 system and EMS. Cardiac patients account for about 10 percent of the EMS/9-1-1 patients, and the majority of these patients are male.

Researchers at the University of California at San Diego analyzed dispatch data for the city of San Diego and examined, in particular, the severity of the emergencies that were called in to 9-1-1. The results revealed that many 9-1-1 patients did not require emergency services involving acute treatment and hospital care.

"The vast majority of patients probably could have been seen and treated someplace else and probably did not need 9-1-1 access," notes Ms. Cooper. It is likely that these data will change as managed care systems require better cost control and improvements in service delivery, coordination, quality, and efficiency.

Developments in San Diego EMS Systems

- Private ambulance systems are joining managed care plans, and this is changing the private EMS industry in the county. "We are changing the incentives in terms of transportation," related Ms. Cooper.
- Private ambulance agencies are beginning to accept full risk for some of the 9-1-1 population. They have agreements with HMOs to take their beneficiaries under risk and assign, manage, and transport them for a capitated rate.
- Managed care systems now promote the use of nurse triage systems, in which the patient describes the symptoms over the telephone to a nurse who then advises the patient whether the described symptoms require 9-1-1 assistance. According to Ms. Cooper, many hospitals "are going to the nurse triage system [in which] they tell their subscribers not to dial 9-1-1 and instead to dial the nurse triage line."

Pilot Programs

A number of pilot programs involving managed care are being conducted in the San Diego EMS system. In one pilot program in the rural part of the county, paramedics who arrive at an emergency scene determine whether the patient requires acute care and immediate emergency transportation. If acute care is not required, the paramedic obtains HMO insurance information from the patient and reports this information to an ambulance dispatch center.

Centralized communication systems, according to Ms. Cooper, are "probably going to be the key in EMS—to have a centralized

communication system that can provide better [triage] of all patients who call in to the managed care or 9-1-1 system and ensure that we get the right patients to the right hospital, [on] the first time [out]."

- A large ambulance service provider is working on a new managed care transportation system that merges the transportation systems with managed care groups to provide the best and most efficient transportation services to hospital patients, including EMS.
- There is also interest in linking insurance company data with the 9-1-1 dispatch centers so that 9-1-1 operators would know whether a particular patient was enrolled in an HMO. With this information, they are better able to make decisions about what health care facilities or resources are needed and most appropriate for a particular patient.

Maintaining and improving the quality of services are critical to the success of the pilot programs and the switch to managed care. Quality indicators and patient care tracking programs are needed to make sure quality is not sacrificed for cost containment. "As we change the mechanisms of delivering services," said Ms. Cooper, "we have to make sure that what we have done in that change does not provide greater harm or greater risk to the patient population that we are there to serve."

Ms. Cooper suggested several actions that could be taken to improve tracking and data systems:

- Partnerships need to be developed with managed care organizations to deliver services more efficiently. San Diego County organized a symposium with EMS providers to discuss the effect of managed care on their services and come to agreement on the meaning of terms such as capitation and full risk.
- Prehospital data need to be linked with inhospital data.
- The treatment and transport of all patients in the system, including patients with heart disease, need to be monitored more closely. "It is no longer treat and transport everybody," said Ms. Cooper, "but it is now treat and transport when appropriate, match systems' resources with patient needs, and be sure to get the right patient to the right place in the right amount of time and on the first run."

The 9-1-1 system safety net needs to be protected. We have to watch over- and underutilization [of services] and match patient needs and system resources.

- A link should be developed for patients in the Medicare and Medicaid systems because they will be changing to a managed care service delivery system.
- Good public education is essential to ensure that the quality and delivery of EMS are maintained as the system changes to a managed care setting. Patient complaints need to be investigated promptly, and good first-responder and bystander care programs are needed.
- The 9-1-1 system safety net needs to be protected. "We have to watch over- and underutilization [of services] and match patient needs and system resources. We

also have to provide a balance so that the safety net for vulnerable populations continues to be protected," said Ms. Cooper.

During the transition to managed care, there is an opportunity to improve the quality and efficiency of the EMS and 9-1-1 systems by stressing quality improvement and cost-efficiency. "I think if we continue to focus on quality and patients, then our patients will continue to be served by the EMS system," concluded Ms. Cooper.

EMERGENCY DEPARTMENT ISSUES

How Managed Care Affects How Emergency Department Manages Operations

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[Editor's Note: The opinions expressed by Dr. Smith in his presentation are his alone and do not reflect the views or policies of any organization.]

When discussing the effects of managed care in the context of EMS and the treatment of patients with symptoms and signs of ACI, it is important to understand how an ED functions and what administrative steps caregivers and cardiac patients are required to take.

As chairman of the Department of Emergency Medicine at the Washington Hospital Center, Dr. Mark Smith has firsthand knowledge about the daily operations of the ED. He described the basic steps followed by the ED staff through which patients who report with a possible cardiac emergency have to negotiate.

On arrival. Patients enter the ED either on their own or by ambulance. Triage nurses make the initial assessment, and, regardless of insurance status, patients found to have serious emergencies are brought immediately to the clinical area for medical care.

Registration of noncritical emergency patients. Patients who do not need immediate clinical attention are registered before medical care is given. If a patient is a member of an HMO or some other managed care organization that requires preauthorization of payment before treatment, a staff member calls the managed care organization involved to obtain the authorization. An HMO's decision not to preauthorize payment before care is provided does not mean that it will refuse to pay any of the patient's claim. It may pay for treatment after a retrospective review of the case.

Responsibility of the ED. "Regardless of the HMO's decision, the emergency department has a legal obligation to provide a medical screening evaluation to all patients to determine whether an emergency medical condition exists," emphasized Dr. Smith. EDs are legally obligated to provide emergency care to all patients who request treatment because of the 1985 COBRA. Even if a managed care organization denies the preauthorization of payment, under COBRA the ED is obligated to provide a screening evaluation unless the patient declines.

Regardless of the patient's insurance status, the ED physician will contact the patient's primary care physician, assuming

[3] NHAAP Coordinating Committee Member; American College of Emergency Physicians

one exists, to obtain relevant medical history, such as copies of ECGs.

Following patient evaluation, stabilization, and treatment. Once the patient has been stabilized, a decision must be made whether to (1) discharge the patient, (2) transfer the patient to another facility, or (3) admit the patient to the hospital. If the ED is not part of an inplan facility, the managed care organization usually will require the patient to be transferred to an inplan hospital as soon as the patient is stable enough to be transferred without risk.

There is concern about the potential for adverse clinical outcomes for a patient with an AMI or unstable angina in the managed care environment. Cardiac ischemia cases are time sensitive in terms of treatment efficacy, and the potential is great for problems to occur in relation to managed care systems. "The potential for underdiagnosis is real, and the potential for sudden decompensation is also real unless the patient is at an appropriate care area," noted Dr. Smith. But he pointed out that so far there are no research data to support that concern. "In my experience talking to most of my colleagues, it [managed care] has not really had any visible negative effect. In fact, in some cases . . . it may be positive."

Although there are no data to link managed care organizations with adverse clinical outcomes in emergency situations, there are many situations in which adverse outcomes conceivably could occur.

- The requirement that a patient call a physician or advice line before seeking medical care, whether it be primary care or emergency care, may cause a delay in the patient's receiving the needed medical care.
- A patient having an MI may be directed to a clinically inappropriate facility, such as a private physician's office, rather than an ED.
- ACI treatment is time sensitive, and time may be lost in the ED because of attempts to obtain payment preauthorization.
- The ED may treat the patient and later have its claim for payment denied by the insurer.
- The managed care organization may require the patient be transferred to an inplan facility after the diagnosis is made, and adverse events could occur during that process.

All of these are possible, Dr. Smith said, but "in the majority of practice environments around the country . . . most of these do not happen in a way that compromises clinical care . . . ." He acknowledged, however, that "there are a sufficient number of anecdotal instances of each of these problems occurring that I think we need to bring them out in the open so that [they] can be discussed on their merits."

In my experience . . . [managed care] has not really had any visible negative effect. In fact, in some cases . . . it may be positive.

The EMS system is in transition from the fragmented fee-for-service indemnity insurance to coordinated and managed care. More of the infrastructure is in place, there is more coordination of systems, and more medical conditions are being assessed by telephone to determine the need for ED care.

What Is Considered an Emergency?

What is the definition of "emergency" that insurance companies should use when deciding retrospectively whether to pay an ED bill? The standard patient-centered definition of an emergency described by Dr. Smith is "whether a prudent layperson possessing an average knowledge of medicine and health, who is experiencing the symptoms, believes that unscheduled medical care is required. . . . It is a symptom-driven definition." On the other hand, a diagnosis-centered definition would include only those conditions considered threatening to "life, limb, and well-being." However, "the ultimate diagnosis is not the salient point in determining whether an emergency exists, and consequently, whether a bill should be paid," advised Dr. Smith.

Information technology will be the glue that is going to link the managed care organization, the patient, and the EDs in a seamless link.

He described the changes in the EMS system resulting from managed care as being positive. EDs and managed care organizations have increasingly similar interests. Managed care organizations can help the NHAAP conduct patient education because of their large information dissemination systems.

Information technology will be "the glue that is going to link the managed care organization, the patient, and the EDs in a kind of coherent and seamless link," Dr. Smith concluded. In the future, "we are going to have more and more telephone coordination of an integrated, seamless system in which the emergency department will be one very important piece, but simply one piece of that system."

HEALTH CARE FINANCING ADMINISTRATION PERSPECTIVES

The Potential of Managed Care Organizations To Improve Health Care Coordination

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According to Dr. Jeffrey Kang, the chief medical officer of the Office of Managed Care in HCFA, there is reason to be optimistic about the role of managed care in emergency patient care. Specifically, he believes that managed care organizations have the potential to be helpful to the NHAAP in its efforts to improve the coordination and care provided to patients with ACI.

The traditional fee-for-service indemnity insurance programs are fragmented because they pay for services on a visit-by-visit and provider-by-provider basis. "We, in many of our rules and regulations, actually get in the way of coordinated care. Under a capitation system, the potential for managed care entities to reorganize care is dramatic," said Dr. Kang.

Managed care organizations have a strong incentive to work with providers on primary and secondary prevention of acute cardiac ischemia. They are interested in rapidly identifying and treating ischemia in the ED because it will be cost-effective for

them in the long run. It can increase the likelihood of a positive clinical outcome for the beneficiaries and reduce the need for expensive long-term medical care.

However, there is a potential downside. In their efforts to reduce medical costs, managed care organizations may reduce quality of care through the "underutilization" of services and by "erecting barriers."

"True outcome measures will be necessary to hold managed care plans accountable for the quality of care that they are delivering," said Dr. Kang. HCFA is working with NCQA on its HEDIS project, and it is developing outcome measures for ACI through the Cooperative Cardiovascular Project. This project has the goal of developing ways to "measure a plan's performance, and then, as a purchaser, hold the plan accountable for the quality of care that it is delivering."

Suggestions for Managed Care Organizations

The managed care industry is willing to pay for EMS when they are used appropriately for health emergencies but not for inappropriate uses. However, during this period of transition when several models of insurance plans are in use, the managed care organizations are discouraging the inappropriate use of EDs, for example, when they are used as sources of primary care. The traditional indemnity plans in general have allowed the use of EDs as a source of primary care.

"I think that this effort to reduce inappropriate utilization of health care services through managed care has a great risk . . . and the unintended consequence of preventing or interfering with the rapid identification and treatment of patients with ACI." To avoid this kind of interference, Dr. Kang suggested that managed care organizations consider improvements in three elements of their process for controlling the use of emergency medical services.

1. **Beneficiary education materials.** Education materials must clearly inform beneficiaries about how to identify the symptoms and signs of ACI, and materials must direct beneficiaries to call 9-1-1. "We know that new models of screening patients for emergency medical services are being piloted. Managed care entities will be prepared to coordinate their efforts and inform their beneficiaries on whatever public health system is created for accessing the EMS system," said Dr. Kang.

2. **Prior authorization of payment.** "Prior authorization rules for [ED] access and subsequent treatment of ACI must have clear exceptions for those patients who are presenting with chest pain and the possibility of ACI," said Dr. Kang. At a minimum there must be identified symptoms or signs that everyone agrees are possible early warnings of ACI. HCFA has a little-known rule prohibiting Medicare risk plans from using prior authorization for in-network or out-of-network emergency services. HCFA is exploring the possibility of making a similar rule for Medicaid patients. "I think HCFA, as one of the largest purchasers of managed care in the country, would be happy to support similar efforts with commercial insurers," said Dr. Kang.

3. **Coverage and payment policy exceptions.** The coverage and payment policies of managed care organizations must allow exceptions for patients with ACI or chest pain. "The ED and the patient . . . should not have to worry about whether a service involving medical screening for [ACI] will be paid for."

Managed care organizations must allow exceptions for patients with ACI or chest pain.

Conclusions

There is great potential for the managed care industry to improve the rapid identification and treatment of patients with ACI. HCFA is interested in working with the NHLBI and the NHAAP on this issue and is willing to use HCFA regulations, payment policies, and relationships connected with the managed care industry to help make progress in this area.

There is a confluence of interests occurring because the managed care industry is beginning to recognize that working with physicians and researchers on this issue will result in cost-effective care for beneficiaries. Not only would such a collaboration promote more cost-effective identification and treatment of AMI, but it would support primary and secondary disease prevention efforts to further reduce health care costs. To facilitate this collaboration, Dr. Kang suggested that the medical directors of several managed care entities be invited to participate on the NHAAP Coordinating Committee.

He also suggested that the NHAAP Coordinating Committee take an active role in developing clinical outcome measures for the emergency care of patients with ACI. "I really encourage all of you to participate in the development of outcome measures that HCFA, NCQA, and the JCAHO can use to hold managed care plans accountable in this area of [AMI] and infarction."

Continuous Quality Improvement and Managed Care: Can We Define Indicators of Quality?

Using HEDIS To Evaluate the Quality of Care and Performance of Managed Health Care Organizations

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How can the quality of care provided by managed care organizations be evaluated? What indicators can be used to measure quality of care? Is it possible to define indicators of quality of care at all? According to Dr. Cary Sennett, vice president for performance measurement for NCQA, the question is not whether one can define quality-of-care indicators but how the current indicators were developed and how will they be defined in the future.

Answering questions about the quality of care provided by managed care organizations is one of the goals of NCQA, a nonprofit agency that evaluates and reports on

the quality of managed care firms. Its philosophy is that the health plan organization is responsible or accountable for the care and service provided to the populations it covers.

"We believe that a good health plan will act as an effective agent or broker for its covered population," affirmed Dr. Sennett. NCQA believes that increased competition can drive improvements in quality of care in the managed care industry. For that competition to take place, however, information about the quality of care and the service delivered by various managed care organizations is needed. Without information on plan performance, there is no incentive for managed care organizations to improve their care.

"Our role has been to try to create the information that would make the market work more efficiently," explained Dr. Sennett, "that is, to create the information that would give purchasers and consumers a better ability, a better opportunity, to make choices based on information about the quality or performance of managed care plans which are the options that they have."

Performance Measurement: HEDIS

HEDIS is a set of statistics that was created 3 or 4 years ago to provide corporate purchasers of managed health care with objective, standardized information about the performance of different health plans so that they could select plans on the basis of quality and performance as well as cost.

The HEDIS statistics sets provide information in five different areas: (1) quality of care, (2) access and satisfaction, (3) membership and utilization, (4) finance, and (5) description of management.

The first HEDIS set (version 2.0) focused on preventive care and pregnancy care. "These measures were put forth early because there was a high degree of consensus about what the rules were for care of patients who required preventive services and because these were areas in which measurement was relatively easy," stated Dr. Sennett.

Following the release of HEDIS 2.0, NCQA conducted a pilot evaluation project and produced a report card. From that pilot "we came to believe strongly that some audit or external verification of the statistics was required. But even so, we were struck by the extent to which there is variation across plans and how compelling that variation is," said Dr. Sennett.

Answering questions about the quality of care provided by managed care organizations is one of the goals of NCQA.

HEDIS data include information broken down by sex and age on the utilization rates of different cardiac care procedures, such as coronary catheterization, bypass graft surgery, and coronary angioplasty. These data reveal that "there is very substantial variation that we need to understand and that can begin to inform the next level of questions, if not begin to inform choices about individual health plans," commented Dr. Sennett.

HEDIS is still in the early stages of development and has several important limitations. Its information focuses primarily on preventive care, and there has been little assessment of the implementation of HEDIS. Technical problems related to analyzing risk adjustment also have not been resolved.

Expanding the Scope of HEDIS

HEDIS 3.0, the next version of the indicator set, is in the process of development and will be expanded. [Editor's note: HEDIS 3.0 was in the development stage at the time of this presentation but was subsequently completed in 1996.] It will be an information set that is integrative and applies not only to commercially insured populations but also to the Medicare and Medicaid populations. The clinical focus will expand to include chronic care and acute illness issues. Because of the demand for more information on clinical results, NCQA plans to address the technical problems related to adjusting for differences in population risk. NCQA plans to solicit suggestions for new measures that would better evaluate or assess the extent to which managed care firms are delivering accessible or high-quality care for patients with AMI.

Setting priorities about what data to collect is important. "Probably the greatest challenge at some level is managing expectations. The demand in the purchasing community for information to assist them to make choices is very substantial, and the desire to assist them in this is also substantial," said Dr. Sennett.

The science and rigor that need to be brought to this process imply the need to move with deliberate pace, and NCQA's challenge is to balance the need to move forward rapidly with the need to move forward only as deliberately as science permits.

Developing Cardiac Indicators of Quality and Outcomes for Managed Care Organizations: Report From the Joint Commission on Accreditation of Healthcare Organizations

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"We have an adage at the Joint Commission that we have had for a number of years, but it is particularly apt now. It is, 'If you cannot measure it, you cannot manage it,'" offered Ms. Margaret Van Amringe, director of the Washington Office of the JCAHO.

It is apt because of the growth of the managed health care industry. "Managed care is unique among providers of care in its goal of promoting continuity and coordination along a continuum services," observed Ms. Van Amringe. The effective management of health care relies on the interrelationships between the providers who supply the managed care organization's services and programs and the organization's central point of operation.

The JCAHO has the challenge of providing an inventory of credible performance-based standards and outcome indicators that measure the most important functions that managed care organizations perform. This inventory is meant to be used by three types of stakeholders in managed care: payers, consumers, and providers and clinicians.

Since the mid-1980s, the JCAHO has been developing outcome indicators for providers. For example, last year, it incorporated a cardiovascular indicator for hospitals that was recommended by the NHAAP. "It is now affectionately called 'Our Indicator Number 12,' which is the time to thrombolytic therapy," reported Ms. Van Amringe.

Because of the issues raised by managed care, the JCAHO is creating a new framework for developing and testing indicators. In April 1995, it published a request for indicators of clinical outcomes, and more than 900 individual indicators were sent for evaluation of managed care programs, two of which originated with the NHAAP.

These 900 indicators were sorted into five domains of importance in relation to managed care: health status, clinical performance, disease prevention and health promotion, patient and provider satisfaction, and communication and education. These were further sorted according to criteria that the JCAHO has established and considers most important for evaluating outcome indicators: validity, reliability, data discrimination, data collection efforts, and relevancy.

The remaining 300 to 400 indicators were put into a large grid and matched to 10 to 12 priority disease conditions, including cardiovascular disease. They also were analyzed according to the JCAHO's 11 dimensions of care: appropriateness, availability, continuity, early detection, effectiveness, efficacy, efficiency, prevention of disease, respect and caring, safety, and timeliness.

For cardiovascular care, the most important part of this grid is that it is dynamic. "We think with the recent advances and the rate of advances in technology and cardiovascular care, it is very important that we keep this grid moving and work in collaboration with the field to develop new indicators along those dimensions of care where necessary," said Ms. Van Amringe.

This new framework and its attendant selection of indicators for use for managed care organizations should be available in early 1996. [Editor's note: This framework was released at the National Managed Health Care Congress, April 14, 1997, in Washington, D.C.] The JCAHO hopes that the new framework will contribute to establishing a managed care marketplace that emphasizes accountability and performance.

If you cannot measure it, you cannot manage it.

In addition to its program of developing indicators for managed care, the JCAHO also is committed to bringing some level of standardization to the measurement of managed care. "If we are really to have information that is useful for continuous quality improvement and for decisionmaking by consumers and payers, we have to make sure that we can compare the information from one plan with another and within a plan over time. That means not just standardizing the numerator and denominator of a measure but looking at issues such as data dictionaries, data collection efforts, and making sure that when we collect information, we can really make it useful for people," concluded Ms. Van Amringe.

MANAGED CARE PERSPECTIVES

Future Challenges in Caring for Acute Cardiac Ischemia Patients

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Office of the Health Centers Division
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Managed care is about "attempting to continue to provide quality health care with much more limited resources," said Dr. Joanne Wilkinson, physician coordinator of Emergency Services and Urgent Care Utilization for the Harvard Community Health Plan [Editor's note: Now Harvard Pilgrim Health Care]. "Purchasers are demanding it, and reduction of health care expenditures is absolutely necessary for the well-being of our national economy."

The challenge for the NHAAP is going to be education of the payers and providers of health care.

Dr. Wilkinson contended that the major challenge is not whether managed care organizations can be engaged in the effort to improve access to care for cardiac emergencies because she agrees with others that they are likely to be willing partners.

"The challenge for the NHAAP," said Dr. Wilkinson, "is going to be education of the payers and providers of health care about the timeframes that are needed to achieve rapid reperfusion and the cost-benefit of doing coronary reperfusion."

She described other challenges that she believes lie ahead with regard to managed care and the care of patients with ACI.

- Prehospital and outpatient critical pathways for care that are based on data need to be developed. Managed care organizations are accustomed to critical pathways in hospitals for inpatient care.
- One of the most important areas to focus on is reducing patient delay times. Delay times can last up to 6 hours or more, and this is true for patients in both managed care and traditional indemnity health care programs. Dr. Wilkinson does not believe that more legislation is needed to ensure access to care because there are Federal and State HMO statutes as well as Medicare risk contracts that already provide regulatory safeguards to access.

[4] Advisor to the NHAAP Access to Care Subcommittee

- Reducing delay times without increasing the use of the ED for noncardiac chest pain will be a challenge. Resources for research are diminishing, but HMO record systems and databases have a wealth of data on prehospital care that can be analyzed.

Dr. Wilkinson recommended that the next step may be to develop a broadly applicable critical pathway with an outcome measure that can be used in the upcoming versions of HEDIS. "This is just one idea, but there are, I am sure, many others where the NHAAP will find a willing partner in managed care," said Dr. Wilkinson. "I, for one, am looking forward to such a partnership in the work that lies ahead."

EMERGENCY MEDICAL SERVICES PERSPECTIVES

Caring for the Cardiac Arrest Patient and the Chest Pain Patient

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How does the EMS system fit into the care of the cardiac patient in the modern reimbursement scheme? In particular, how does the EMS system care for both cardiac arrest patients and chest pain patients?

"In the ideal world, this is simple," stated Dr. James Atkins, medical director of Emergency Medicine Education and professor of internal medicine at the University of Texas Southwestern Medical Center at Dallas. "You would like all the true emergency patients to call 9-1-1 and all the nonemergency patients to call the 800 or other access." But in the real world, people are often not sure whether they have a true emergency," and that becomes our dilemma, from both the managed care side and the EMS side," noted Dr. Atkins.

For the EMS personnel, nonemergency patient calls mean that resources needed for emergencies are being used to transport patients who are not seriously ill.

"If a patient calls the toll-free number for the health care plan, will this cause a delay in reaching 9-1-1?" asked Dr. Atkins. "What should the linkage be between the 800 number and 9-1-1? Should these services be linked so that if patients call the 800 number and it becomes obvious that it is an emergency, the call is immediately transferred, and the ambulance is dispatched immediately without adding 2, 3, or 4 more minutes of delay? Likewise, if patients call 9-1-1 and they do not have a true emergency, should an ambulance be sent or should the call be transferred to the 800 number?"

But in the real world, people are often not sure whether they have a true emergency, and that becomes our dilemma.

In the case of cardiac arrest, it is important to instruct the bystander, first responder, and paramedic responder to act quickly. In the case of chest pain, patients need to be prioritized so that the first responder and

[5] NHAAP Coordinating Committee Member; American College of Cardiology

the paramedic responder are dispatched when appropriate. The problem, according to Dr. Atkins, is defining what situations are appropriate.

The paramedic response to cardiac arrest is relatively simple: defibrillation and advanced cardiac care. With the chest pain patient, the paramedics can help not only with access to care, "they can assess the patient, get a 12-lead ECG, and maybe help make the decisions between the prehospital phase and hospital phase," said Dr. Atkins.

Some cities are developing programs so that a 12-lead ECG can be performed in the field. Such programs involve limited questionnaires that can be used for triage of the patient or make some decisions. But "how should these patients be triaged?" asked Dr. Atkins.

Should the patient be transported to a hospital participating in his or her health plan or the hospital that is closest? The closest hospital or the "best" hospital? "These are tough decisions that we are going to have to look at to try to make the decision of how to make this system function as well as possible," said Dr. Atkins.

Should the EMS not transport some patients? As many people know, there are a number of patients who call EMS but do not have emergencies. How should those patients be handled? Should the paramedics assess the patient and then just leave?

"If that is the case," said Dr. Atkins, ". . . our training programs for paramedics are not aimed in the proper direction." Paramedics are trained to deliver critical care during transport, but they are not taught to determine whether the patient needs transport. "If paramedics are going to start doing that, then we have to rethink much of our educational system. What sort of criteria? Age, history, ECG? What training is going to be needed? These will be the issues that we will have to face in this new arena," he concluded.

Small-Group Reports on the Perceived Issues and Possible Solutions

Challenge to NHAAP Coordinating Committee and Industry Representatives

Lawrence D. Jones, M.D.[6]
Consulting Physicians Network
Summit, Missouri

The Coordinating Committee has met throughout the years during a time of huge change, socially, politically, and in the medical arena. Dr. Lawrence Jones explained that a recurring problem has been how to deal with emergency access to medical care, particularly in the context of the managed care system. For this reason, a special Coordinating Committee meeting was called.

Dr. Jones introduced the background and charge to the small groups of NHAAP Coordinating Committee members following the managed care presentations: Coordinating Committee members were next provided with an opportunity to discuss the challenges for resolving the problems and issues that exist. Members were then charged with forming five small discussion groups to answer questions and propose solutions to specific issues related to managed care policies and trends and concerns regarding the care of AMI/ACI patients:

Group 1 - Metropolitan Viewpoint

Group 2 - Rural Viewpoint

Group 3 - Public Policy

Group 4 - Research

Group 5 - Crosscutting Challenges and Solutions

Below is a summary of the solutions and recommendations proposed by each group.

GROUP 1—Metropolitan Viewpoint

[Facilitator: Dr. James Atkins]

Question 1: In the metropolitan setting, what are the perceived issues related to managed care and access to care for patients with ACI?

1. The clear-cut winner was a perceived lack of choice by the patient; this was felt by many to be a major issue.
2. An offshoot of the first issue was the question, "Who is going to take care of me?"
3. Another issue is fear that the care delivered will be less than optimal under managed care.

Dr. Atkins pointed out that these perceptions may or may not be real but were considered to be issues by the Coordinating Committee members.

[6] NHAAP Coordinating Committee Member; American Academy of Insurance Medicine

Other perceived issues:

- The patient may fear that the bill is not going to be paid if the managed care provider does not think the patient's complaint was an emergency and warranted a visit to the ED.
- The patient may feel he or she cannot go to the "best practice" because it is out of the managed care network.
- Problems with patient transfer and triage constitute a perceived issue under managed care.

Question 2: How might the NHAAP, its Coordinating Committee member organizations, and nonmember organizations address the three highest priority managed care and access to care issues identified in the first question?

1. Educate managed care groups regarding what is appropriate care and quality care for a patient with ACI and allow for a payment structure for care that is out of the network.
2. Improve the quality of care through outcome measures, thereby improving patient satisfaction.
3. Educate the patient and the employer about how to select a quality managed care plan.

Other recommendations:

- Develop criteria for what care is expected and the quality of care.
- Develop networks for education regarding primary prevention.

GROUP 2—Rural Viewpoint

[Facilitators: Mr. Jimm Murray, Ms. Valerie Gompf]

Question 1: In the rural setting, what are the perceived issues related to managed care and access to care for patients with ACI?

1. Will or should managed care organizations seek to enroll members in rural areas?
2. Another issue is transport times and accessibility.
3. What level of treatment facilities and expertise will managed care organizations have in a rural setting?

Ms. Gompf pointed out that there were similarities between rural issues and metropolitan issues.

Other perceived issues:

- Local logistical solutions, e.g., telemedicine, helicopters, physician extenders.
- Outcomes research and how it reflects rural versus other populations.
- Identification of high-risk patients and perhaps providing bystander training.
- The impact of managed care on volunteer EMS.
- Physical accessibility to patients.
- Skill retention and the ability to [provide] triage and diagnosis.
- Concerns about the transient, unemployed nature of the rural population.

Question 2: How might the NHAAP, its Coordinating Committee member organizations, and nonmember organizations address

the three highest priority managed care and access to care issues identified in the first question?

1. The NHAAP should be an advocate for patients in rural areas to ensure that rural issues become factored into any discussion regarding managed care.

2. The NHAAP should define what is meant by "rural" and "frontier" and develop recommendations for parameters of care regardless of payer type to determine the most effective care method.

3. Optimal operational parameters should be developed for rural transport.

Other recommendations:

- Study and develop mechanisms to improve the effectiveness of triage, determine the cost-effectiveness of using air evacuation, and identify tertiary facilities.

- Support and encourage the use of performance indicators or outcomes to ensure that comparative treatment occurs in all population settings.

A question from the audience to the rural group was whether the rural physicians' lack of expertise in some of the technological options relevant to ACI/AMI diagnosis and treatment was discussed as an issue. It was pointed out that this particular point was not addressed during the group discussion but that it should be included in the discussion.

GROUP 3—Public Policy

[Facilitators: Mr. Jay Merchant, Mr. William Schneiderman]

Question 1: What governmental and managed care provider policies need to be in place to ensure rapid identification and treatment of managed care patients with ACI?

1. All managed care organizations need written policies that reflect the urgent nature of ACI and in conjunction with this, all payers must pay for ED visits to rule out ACI/AMI.

2. A national reporting requirement system needs to be established.

3. A universal health insurance system is needed so that no one is excluded.

Question 2: How might the NHAAP, its Coordinating Committee member organizations, and nonmember organizations help implement the three highest priority managed care and access to care issues identified in the first question?

1. The NHAAP should work with quality assurance organizations to identify the policies of managed care organizations and to ensure that the care being delivered is appropriate.

2. Governmental policies should require monetary assessment of managed care organizations to pay for a data system.

3. Develop parameters of care for AMI/ACI patients in this country [Editor's note: Issue 3 originally read, "Identify standards of care," but was revised in response to a comment from the audi-

ence that such a change would make the statement more benign from a medical and legal point of view.]

Mr. Merchant pointed out during his report that the policy group had concerns regarding the 50 million uninsured Americans.

GROUP 4—Research

[Facilitators: Dr. Jane Scott, Dr. Harry Selker]

Question 1: What are the critical research questions related to managed care and access to care for patients with ACI?

1. What are the quality indicators for process and outcomes of care for ACI?
2. What are the reliable methods for risk stratification of patients with prodromal or ACI symptoms?
3. What can managed care plans do to reduce the rate of cardiac arrest and improve outcomes for patients with ACI? (Compare across plans and insurance types.)

Question 2: What recommendations would you make to the NHAAP, its Coordinating Committee member organizations, and nonmember organizations to facilitate funding of the three highest priority research questions identified in the first question?

1. Organizations such as the NHLBI, the NHAAP, AHCPR, the Centers for Disease Control and Prevention, HCFA, HMOs, and hospitals need to make research monies available to (1) develop and implement measures of short-term and long-term outcomes (including medical outcomes, utilization, and cost) for patients with ACI including cardiac arrest and (2) demonstrate, implement, and evaluate novel and innovative pilot programs with measures and outcomes for the delivery of care for patients with ACI and cardiac arrest in managed care settings.
2. Identify and develop reliable and valid methods for the risk stratification of patients with ACI and cardiac arrest (including a data repository).
3. The NHAAP should make recommendations to some of the standards organizations such as the JCAHO and NCQA to start collecting data regarding the issue of cardiac arrest research and outcomes of patients with ACI and develop quality indicators or reports to be shared with managed care organizations, with broad participation of the health care community, to assist with the education of patients in identifying symptoms of ACI/AMI.

GROUP 5—Crosscutting Issues (Challenges and Solutions)

[Facilitators: Dr. Lawrence Jones, Dr. Joanne Wilkinson]

Question 1: What do you perceive to be the most important issues related to managed care and access to care for patients with ACI?

1. The need to study and evaluate ways to reduce delay between the time of the onset of symptoms to the time of evaluation and treatment.
2. The more explicit delivery of diagnostic and management information or protocols for all providers of care at all levels.

3a. The issue of triage in determining which facility is most appropriate.

3b. The issue of how to deal with the uninsured.

Question 2: What recommendations would you make to the NHAAP, its Coordinating Committee member organizations, and nonmember organizations to address the three highest priority managed care and access to care issues identified in the first question?

1. Design and evaluate a research methodology for use by managed care and EMS systems to evaluate changes in the delivery systems, including process and outcome measures.

2. Develop outcome measures for hospitals for patients presenting with chest pain.

3. Recommend that managed care organizations develop and implement critical pathways for the treatment of ACI.

Other recommendations:

- Study patients who presented within 3 hours and find out why they did so.
- Research reasons for the delay of presentation in both patients and spouses.
- Recommend a prototype of clinical pathways or guidelines with a managed care focus, e.g., with cost information.
- Facilitate the introduction of new technologies to the EDs (to include nontraditional methods).

Dr. Lenfant remarked that it would take some time, perhaps one or two more meetings, to assimilate all these recommendations.

Key Recommendations From the Small-Group Reports

The following are the key recommendations extracted from the special focus meeting of the NHAAP Coordinating Committee addressing access to care for patients with symptoms and signs of ACI, within the context of managed care, as approved by the Program Planning Committee. These recommendations apply equally to metropolitan, small town, and rural populations of the country.

- **Educate managed care groups, patients (enrollees), and employers about expected care for patients with ACI.** Educate managed care groups, patients (enrollees), and employers about what is appropriate, quality care for patients with symptoms and signs of ACI, including the importance of allowing for a payment structure for care "out of the network."
- **Develop parameters or standards of care for patients with ACI.** Develop criteria reflecting expected quality or standards of care for patients with symptoms and signs of ACI that reflect the urgent nature of this condition, including the need for managed care organizations to develop and implement critical pathways, and the imperative for payers to reimburse for ED visits to determine this condition.
- **Define the quality indicators or measures for process and outcomes of care for patients with ACI so that they can be tracked by quality assurance organizations on behalf of the managed care industry.** The NHAAP should work with quality assurance organizations to define and encourage the use of performance indicators and outcome measures reflecting early and appropriate recognition and treatment of patients with symptoms and signs of ACI. Related to this, the NHAAP should articulate these quality indicators and measures of care for patients with symptoms and signs of ACI.
- **Recommend research by funding organizations to develop outcome measures and demonstration projects.** Research monies are needed and should be set aside by funding organizations and governmental agencies to (1) develop measures of short-term and long-term outcomes (including medical outcomes, utilization, and cost) for patients with symptoms and signs of ACI, including cardiac arrest; and (2) demonstrate, implement, and evaluate novel and innovative pilot programs with measures and outcomes for the delivery of care for patients with ACI and cardiac arrest in managed care settings, including rural versus urban models, and access to underserved and minority populations.

Summary/Wrapup

Dr. Lawrence Jones
Chair, Planning Committee

Dr. Lawrence Jones commended the speakers at the meeting for presenting a challenge to the Coordinating Committee and providing high-quality information that far exceeded expectations. He noted that Dr. Robert Brook, in particular, did a superb job in starting the conference by asking the right questions and pointing the group in the right direction. However, Dr. Jones cautioned, the test now is to find ways to meet the challenges presented at this meeting so that everyone can benefit.

Dr. Jones also thanked members of the Planning Committee for their dedication and hard work in organizing this special meeting of the Coordinating Committee. The special focus on managed care was successful because everyone did his or her job exceedingly well.

The issues and answers that emerged from the meeting were somewhat unexpected, but that is the purpose of such a meeting—to identify new ways of implementing better strategies for caring for people with ACI (i.e., AMI and unstable angina), according to Dr. Jones. Those issues were highlighted at the meeting.

Dr. Jones concluded that although the Coordinating Committee is made up of members from different professional and industrial organizations, there has never been any effort to insert political or self-serving agendas into the committee's work. All efforts have been concerned with the welfare of the NHAAP mission.

Dr. Claude Lenfant
Director, National Heart, Lung, and Blood Institute

This meeting of the NHAAP Coordinating Committee, with its special focus on managed care, featured discussions that were significant and fruitful. The discussions that took place will help pave the way for the future of the program, which has so far been largely successful because of the cooperation of its participants.

If it were not for this partnership between the Institute and the professional, voluntary, and Federal organizations participating in the program, there is no question that the NHAAP would not be what it is today. The commemoration of the fifth anniversary of this program is being planned, and the discussions from this meeting will contribute to that process.

The main purpose of the meeting was to exchange ideas and information. It was not meant to come up with solutions and decisions because it will take some time to consider the information brought out in the discussions and determine how it can influ-

ence what the various organizations in the NHAAP are doing and how their recommendations can be implemented. This material will be organized and analyzed, and the Institute is committed to taking whatever steps it can.

During the meeting someone asked, "Why is the NHLBI, which is a research organization, holding such a meeting?" The mandate of the NHLBI is to do research to improve cardiovascular health but also to communicate the results of its research for the betterment of the health of the American people. When one looks at the history of the Institute, there is no question that during the past 40, almost 50 years, all the trends and changes that have occurred in the cardiovascular health of the American people show that the initiatives, which have been done in part by the Institute in cooperation with many other organizations, have been extraordinarily successful.

The decline in the rate of death from coronary heart disease or all cardiovascular diseases in the United States is undoubtedly the envy of the world. No other country has experienced the decline in the number of deaths that has been experienced here. It should be noted that this achievement has occurred within a traditional, fee-for-service indemnity health care system, the same system that is being challenged today by managed care.

The NHLBI has always believed that if the research and educational initiatives the Institute conducts are to continue to be successful in terms of translating them into useful information to benefit the health care system and its patients, it is necessary to establish a relationship with the prevailing health care system, no matter what it is. That is what the NHLBI has done for the past 40 to 50 years with the fee-for-service system.

If it were not for this partnership between the Institute and the organizations participating in the program, there is no question that the NHAAP would not be what it is today.

The scene is changing now, and there is a new system emerging. For that reason, there is a strong belief that it is important to establish an open and fruitful relationship with the new and quickly growing managed health care system. This meeting has probably achieved part of that goal.

A representative of several managed health care corporations said that he came to this meeting rather anxious about what would happen. He left feeling that he was among friends and that there were plenty of opportunities for cooperation by all concerned. This remarkable statement can be considered a call to action to continue the work that was begun at this meeting.

NATIONAL HEART ATTACK ALERT PROGRAM (NHAAP)
DECEMBER 12, 1995, COORDINATING COMMITTEE MEETING

Rapid Identification and Treatment of Patients With Acute Myocardial Infarction/Acute Cardiac Ischemia in the Emerging Managed Care Environment: Exploring the Issues

Bethesda Marriott Hotel

Bethesda, Maryland

Tuesday, December 12, 1995

7:30 a.m.	Registration/Continental Breakfast	
8:30 a.m.	Introduction/Setting the Stage	Dr. Claude Lenfant
8:45 a.m.	Access to Care and Triage Under Managed Care: What Are the Data?	Dr. Robert Brook
9:25 a.m.	Predictors of Time to Presentation to the Emergency Department in Patients With Acute Chest Pain: Focus on Insurance Status	Dr. Paula Johnson
9:35 a.m.	Insurance Status and Treatment-Seeking Behavior in Patients With Acute Cardiac Ischemia: Results From the Acute Cardiac Ischemia Time-Insensitive Predictive Instrument (ACI-TIPI) Trial	Dr. Harry Selker
9:45 a.m.	Panel Discussion: Can We Say Anything Based on the Data? [Moderator: Dr. Lenfant]	Dr. Brook Dr. Johnson Dr. Selker
10:15 a.m.	BREAK	
10:30 a.m.	Managed Care and How It Affects Access to EMS	Ms. Gail Cooper
10:50 a.m.	Emergency Department Issues	Dr. Mark Smith
11:10 a.m.	Health Care Financing Administration Perspectives	Dr. Jeffrey Kang
11:30 a.m.	LUNCHEON BUFFET	
12:15 p.m.	Continuous Quality Improvement and Managed Care: Can We Define Indicators of Quality?	Dr. Cary Sennett
12:30 p.m.	Developing Cardiac Indicators of Quality and Outcomes for Managed Care Organizations: Report From the JCAHO	Ms. Margaret Van Amringe
12:45 p.m.	Panel Discussion: Defining Impact and Outcomes [Moderator: Dr. Lenfant]	Dr. Brook Ms. Cooper Dr. Kang Dr. Sennett Dr. Smith Ms. Van Amringe

1:15 p.m.	Ideas/The Future • Managed Care Perspectives [Dr. Joanne Wilkinson] • EMS Perspectives [Dr. James Atkins] • Challenge to NHAAP Coordinating Committee and Industry Representatives [Dr. Lawrence Jones]	Dr. Lenfant
1:35 p.m.	Access to Care for Patients With AMI/Acute Cardiac Ischemia and Managed Care Policies and Trends: Perceived Issues and Possible Solutions Group 1—Metropolitan Viewpoint *[Facilitator: Dr. Atkins]* Group 2—Rural Viewpoint *[Facilitators: Mr. Jimm Murray, Ms. Valerie Gompf]* Group 3—Public Policy *[Facilitators: Mr. William Schneiderman, Mr. Jay Merchant]* Group 4—Research *[Facilitators: Dr. Jane Scott, Dr. Selker]* Group 5—Crosscutting Issues (Challenges and Solutions) *[Facilitators: Dr. Lawrence Jones, Dr. Joanne Wilkinson]*	Dr. Jones
2:45 p.m.	Reports Groups 1-5	Dr. Lenfant
3:25 p.m.	Summary/Wrapup	Dr. Lenfant
3:30 p.m.	ADJOURNMENT	Dr. Lenfant

List of Speakers and Attendees From the NHAAP Coordinating Committee Meeting Special Managed Care Focus Meeting December 12, 1995

Agency for Health Care Policy and Research
Heddy Hubbard, R.N., M.P.H.
Health Scientist Administrator
Center for Outcomes and Effectiveness Research
Agency for Health Care Policy and Research
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American Academy of Family Physicians
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American Academy of Insurance Medicine
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American Association of Critical Care Nurses
Suzanne K. White, R.N., M.N., C.N.A.A., F.A.A.N.
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American Association of Occupational Health Nurses
Rose Scrivner, R.N., C.O.H.N., C.C.M.
AT&T
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Emergency Medicine Education
Professor of Internal Medicine
Division of Cardiology
University of Texas Southwestern Medical Center at Dallas
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American College of Chest Physicians
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Harvard Medical School
Brigham and Women's Hospital
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American College of Emergency Physicians
Mark S. Smith, M.D.*
Chairman
Department of Emergency Medicine
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American College of Occupational and Environmental Medicine
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* NHAAP Coordinating Committee Member, also a speaker at the December 12, 1995, Special Managed Care Focus Meeting

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William Thies, M.D. (substitute)

American Hospital Association
Denise Crowe (substitute)

American Medical Association
Oscar W. Clarke, M.D., F.A.C.P.
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Assistant Professor of Nursing
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American Pharmaceutical Association
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University of California at Los Angeles
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Gail F. Cooper
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* NHAAP Coordinating Committee Member, also a speaker at the December 12, 1995, Special Managed Care Focus Meeting

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Guests

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Physician Coordinator
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and Medical Director
Harvard Pilgrim Health Care
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** Advisor to the NHAAP Coordinating Committee

*** Special invited guest—managed care organization representative

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Citizens for Public Action
Blood Pressure and Cholesterol, Inc.
Rockville, MD

Carole Woehlke, R.N.
Union Memorial Hospital
Baltimore, MD

Phyllis A. Wojusik, R.N.
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